GLEAM

Service Manual

EN

R3 2022-06

Description of the symbols

⚠ **Danger**: This symbol indicates that serious injury may occur if the instructions given are not followed.

⚠ **Caution**: This warns of errors that could lead to causing damage.

ⓘ **Info:** Indicates useful supplementary information that can be used to get the most out of the Multi Use Bike.

▷ **Video:** This symbol indicates that video tutorials are available on our YouTube channel: https://www.youtube.com/Gleam-bikes

WELCOME TO THE GLEAM TEAM!

Dear GLEAM customer,

we would like to take this opportunity to thank you for choosing the GLEAM Escape Multi Use Bike!

The entire GLEAM team lives from our happy customers and is ready to assist you with any inquiries. We are always happy to receive any kind of suggestions and constructive feedback so that we can constantly improve our product and our services! At this point we wish you a lot of fun on all roads, paths and trails and look forward to creative photos, videos, and ideas!

For full warranty coverage, register your product with serial number

within 30 days of receiving your GLEAM Multi Use Bike at

www.gleam-bikes.com/service

The GLEAM Service Manual serves as an aid for the initial start-up of the vehicle and points out the proper use. In addition, you will find information about the basic functions on the following pages.

Kind regards from Vienna,

The GLEAM Team

GLEAM Dealers

For more information or if you have any questions about the bike, please contact your local GLEAM dealer.

A list of all GLEAM dealers can be found online at:
https://gleam-bikes.com/retailers/

GLEAM Contact

Website: gleam-bikes.com
Mail: service@gleam-bikes.com

@gleambikes
GLEAM Multi Use Bikes
Follow us on Facebook, Instagram, LinkedIn, Twitter & YouTube!

GLEAM technologies GmbH
Markhofgasse 19
1030 Wien, AUT

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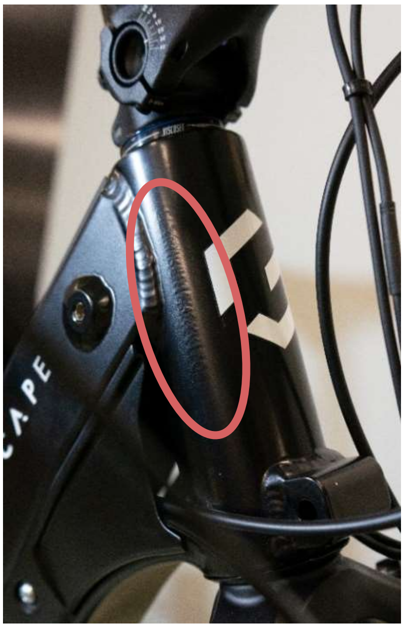
1.0 GLEAM Serial Number

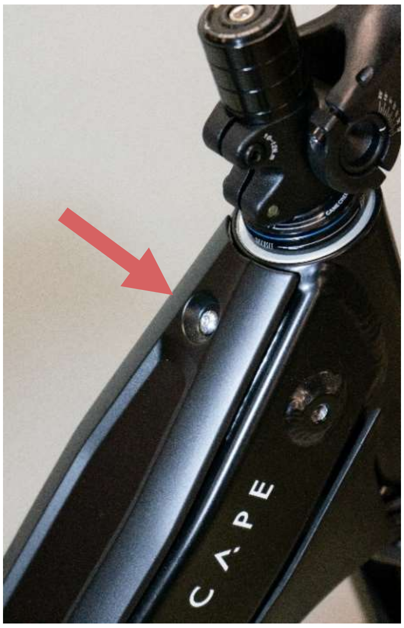
GLEAM Series X [2019]

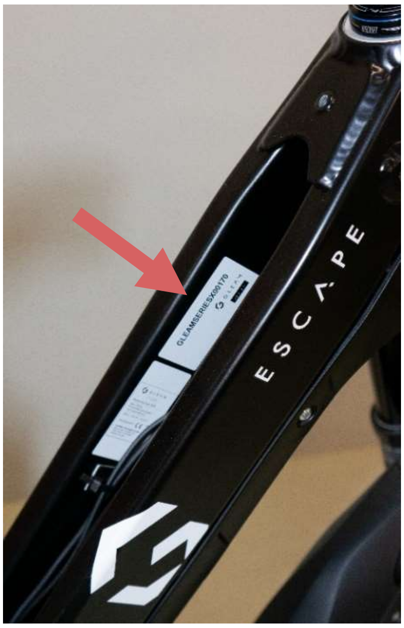
- Embossing on the frame on the right side of the head tube
- Sticker behind the battery pack on the seat tube

GLEAM Escape [2021 and 2022]

- Embossing on the frame on the right side of the head tube
- Sticker on the frame under the downtube cover [the cover must be removed first]







2.0

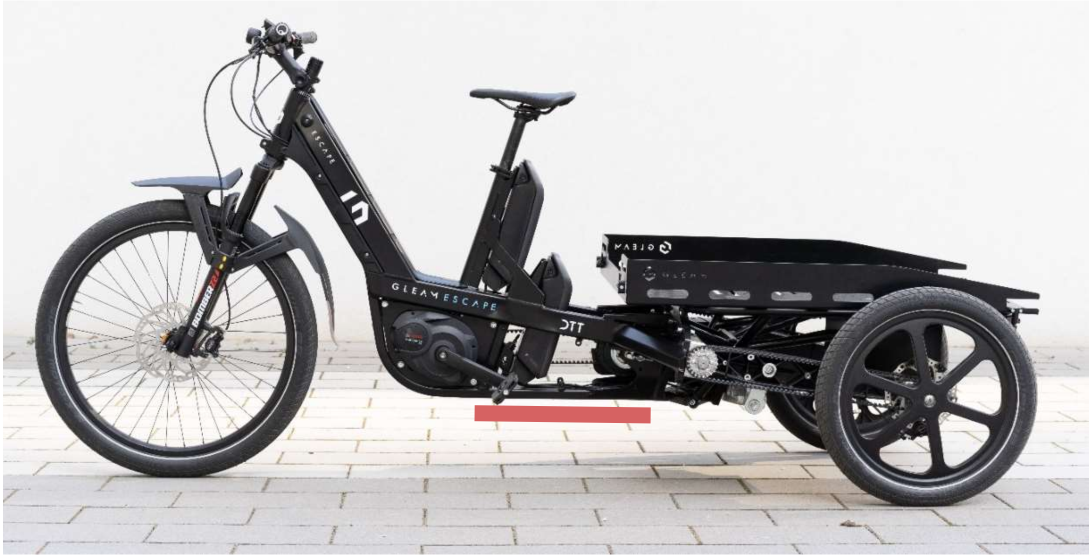
Preparation

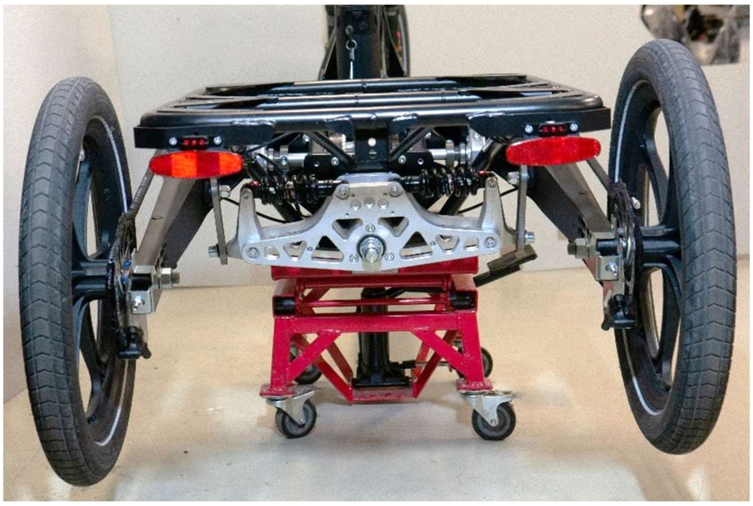
2.0 Preparation

Before performing any service or maintenance on your GLEAM bike, we recommend, that you remove all superstructures and attachments from the bike. Please also remove the FLEX.Base from your GLEAM bike to gain full access to all installed components.

- Turn off the drive system and remove the batteries.
- Place your GLEAM bike on a platform [motorcycle stand, crate...] so that the wheels are no longer in contact with the ground and the rear swing arms can move freely.
- The optimal point to place your GLEAM bike on a platform is at the lower frame between the lower battery and DTT [Dynamic Tilting Technology].

⚠ Make sure that the tilting technology is not blocked by the platform, restruction the freedom of movement of the swingarms!



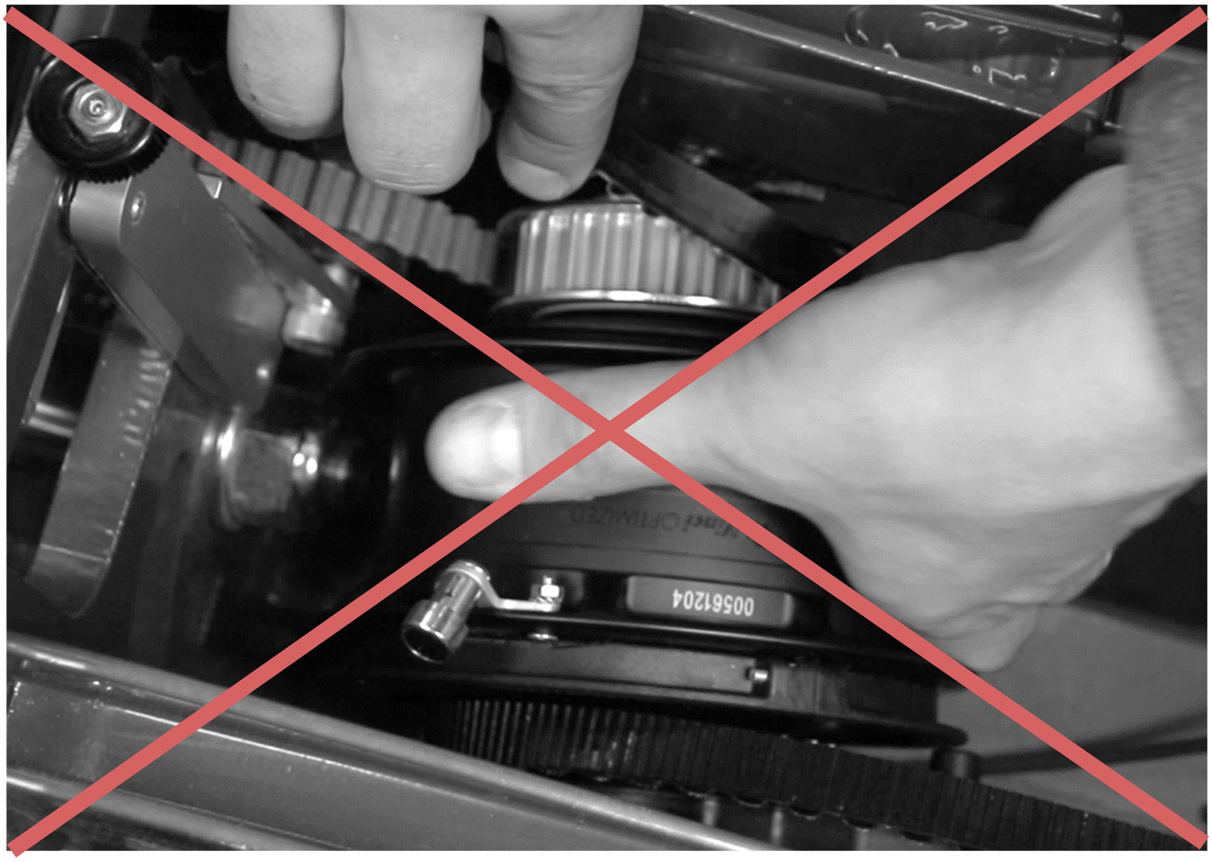


3.0

Removing the Gear Hub

3.0 Removing the Gear Hub

Before removing the gear hub, make sure which version your GLEAM bike is. Models prior to 2021 may have different components than shown in the pictures and description. If you own a "Series X" model from 2020, please contact service@gleam-bikes.com for the "Series X" service manual.



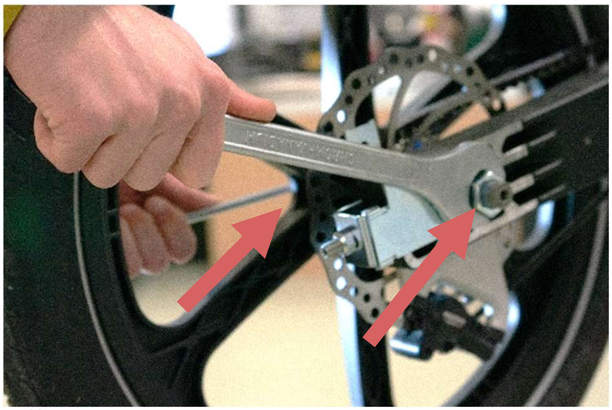
Do not use any metal parts to lift the middle belt or transfer high forces to it! Otherwise damage to the belt may occur, which can lead to tearing of the belt while driving.

Do not force the belt over the sprocket without first removing the differential! If the belt cannot be removed from the sprocket, please check the previous steps of this manual.

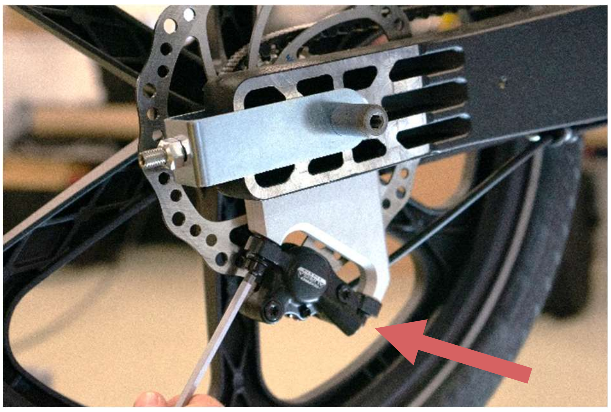
Failure to do so may result in damage to the center belt and/or transmission and cause accidents on the road.

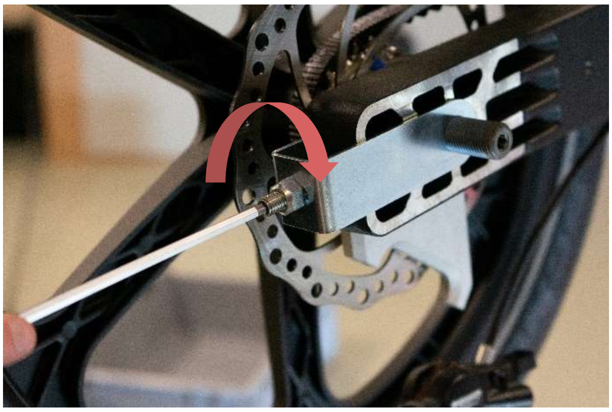
3.1 Loosening the Rear Belt Tension

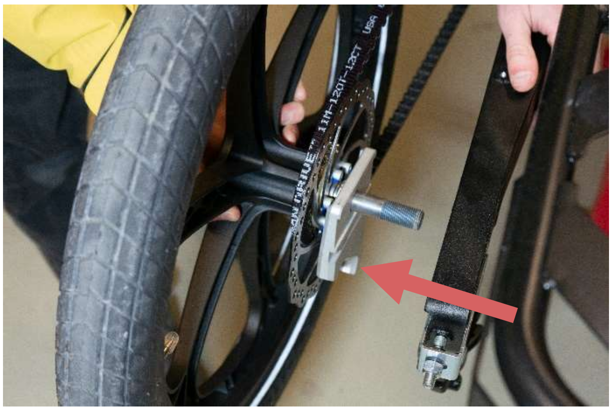
1. Loosen both axle nuts with a 24 mm wrench. Clean and grease the threads if necessary. Hold the opposite screw with an Allen key against the direction of rotation of the axle nut. Alternatively, the Allen key can also be inserted into the inside of the axle to hold it in place.
2. Loosen the nut on the thread of the belt tensioner and release the tension on the rear belt tensioners behind the rear wheels with a 4 mm Allen key and a 13 mm wrench by turning it clockwise. Keep turning until in the fully ‘in’ position. Both belts are now completely loose.
3. Loosen both bolts on both rear brake callipers to remove them from the brake mount.
4. Pull both rear wheels out of the swing arms, being careful not to damage the brake hoses.



x

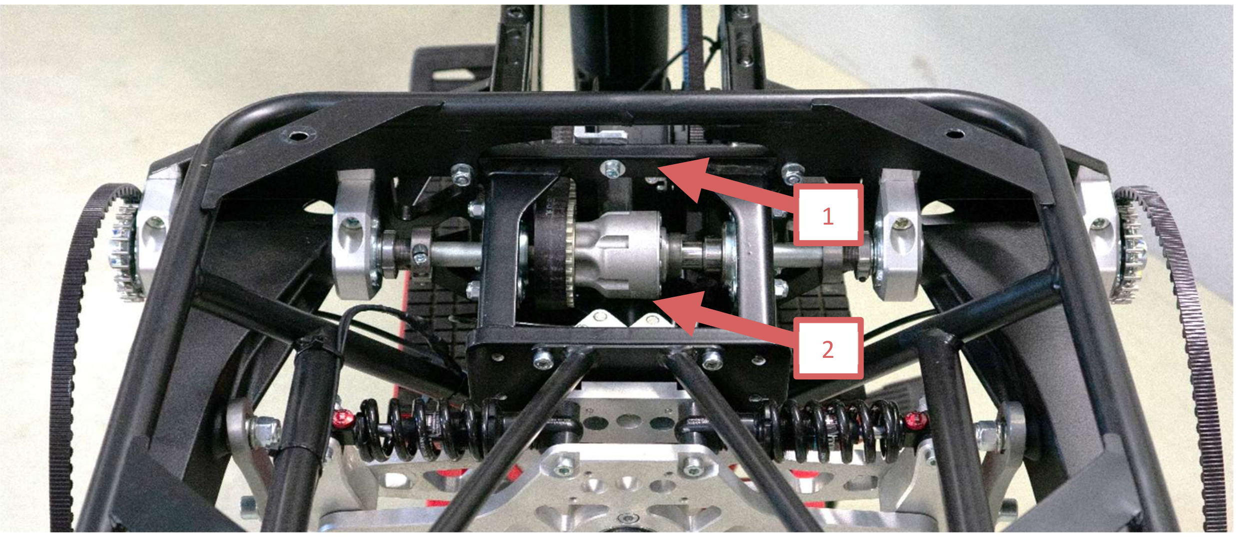


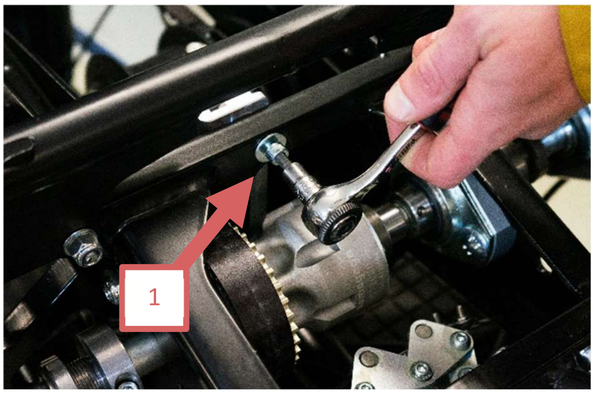


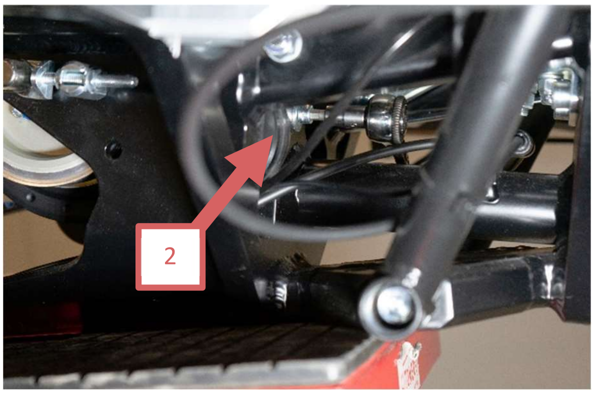


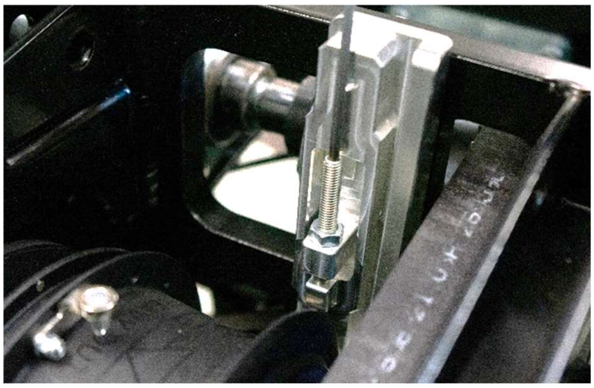
3.2 Loosening the Middle Belt

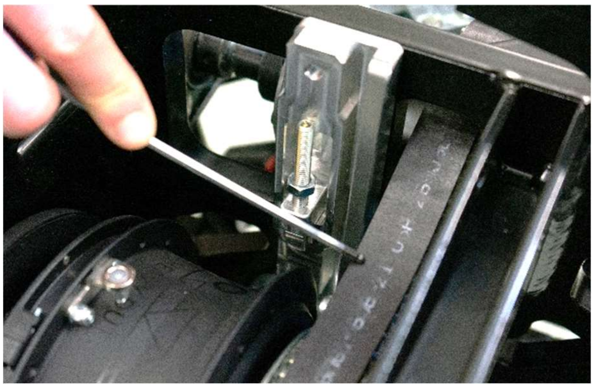
1. Loosen the two fixing bolts [1] & [2] of the middle belt tensioner. These should only be loosened slightly and not removed completely!
2. The first bolt is located above the differential.
3. The second bolt is located below the differential.
4. Loosen both bolts, but do not remove them!
5. Loosen the middle belt tensioner completely by turning the threaded rod on the centre belt tensioner counter clockwise with an Allen wrench.



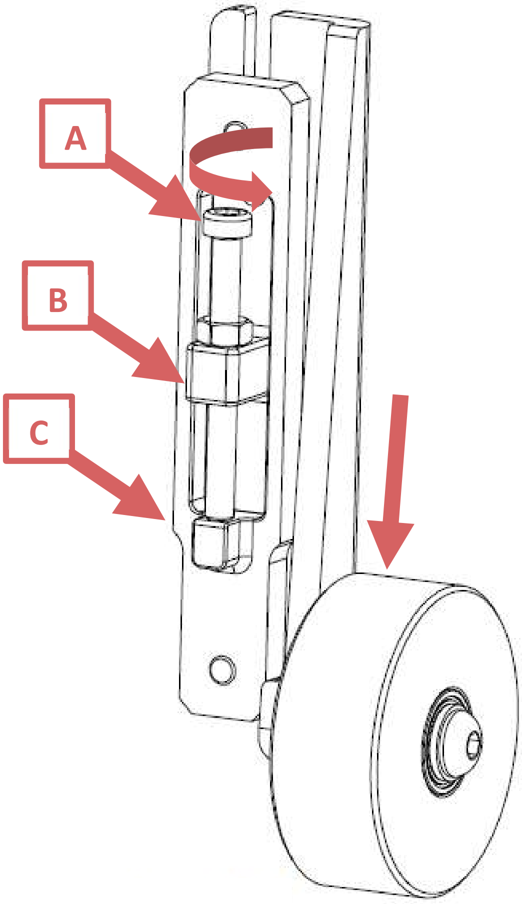




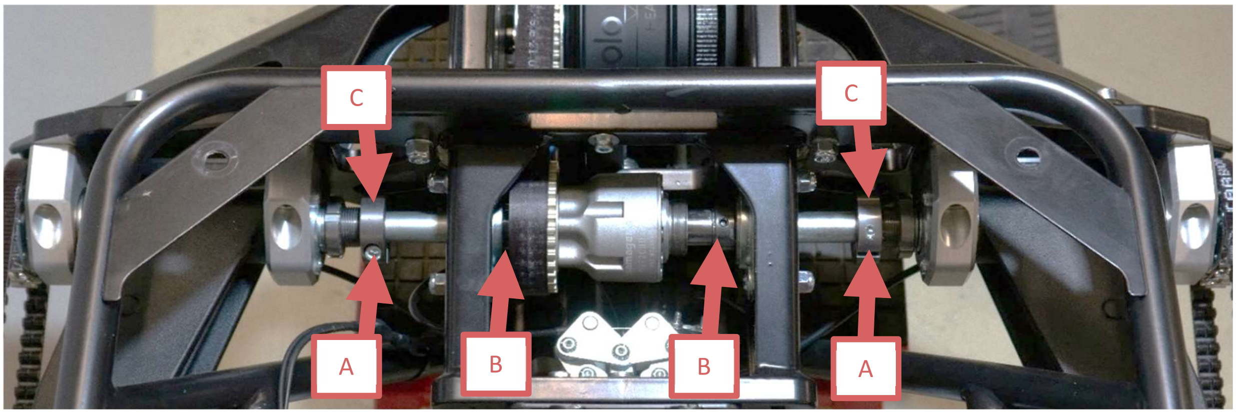




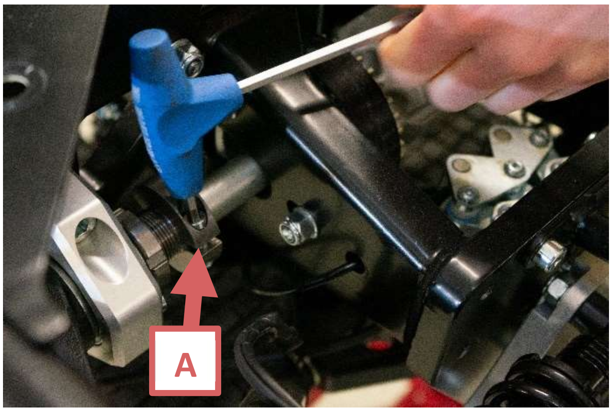
The middle belt is completely released when the bar [B] on the center belt tensioner has reached the lowest edge [C].

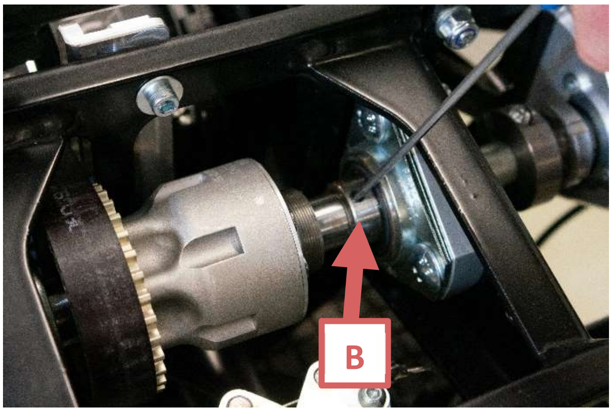


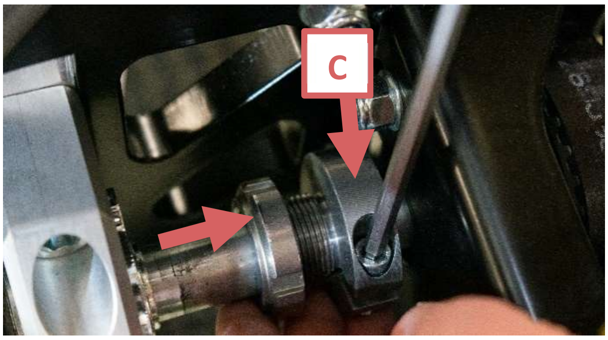
3.3 Removing Drive Shafts & Differential

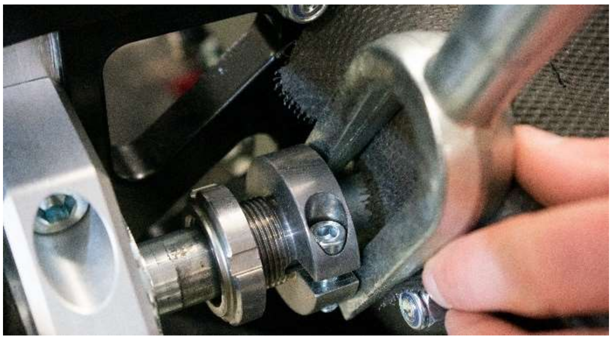


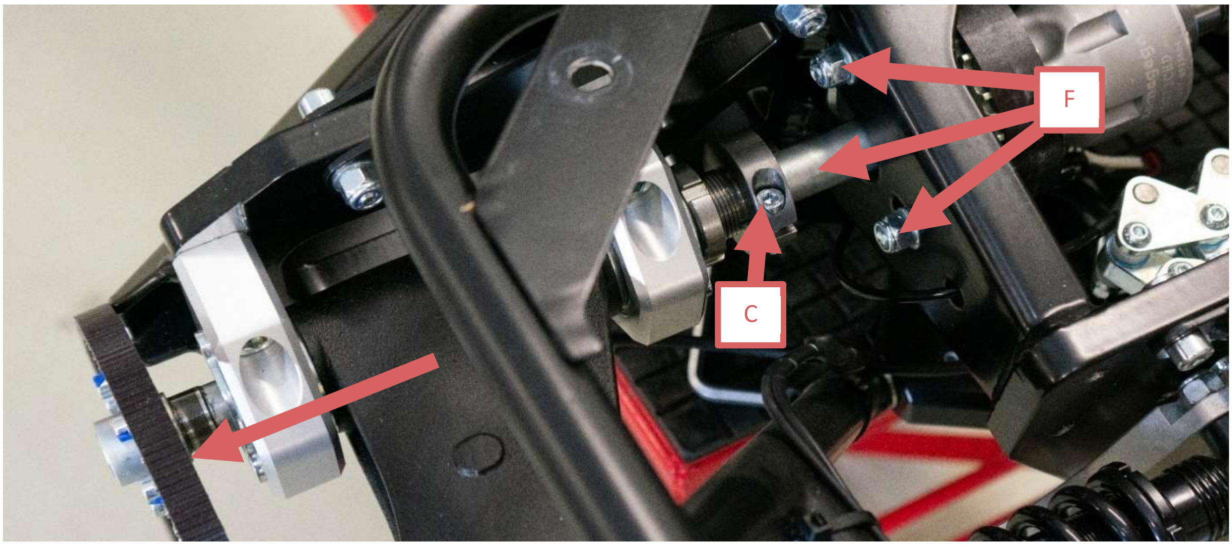
1. To remove the drive shaft, first loosen 2x collar screws [A] and 4x set screws [B].
2. Move the clamps [C] in the direction of the differential so that there is still enough space to insert the extraction fork and then tighten the clamp.
3. Place a non-slip material around the metal parts for protection. Place the extraction fork between the clamp [C] and the frame and push the extraction fork towards the differential to push the drive shaft out of the differential.





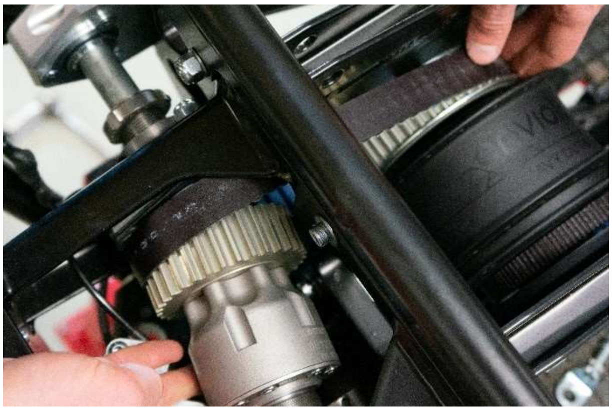


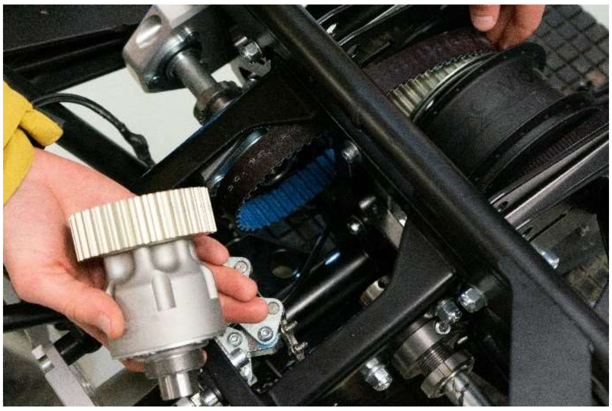




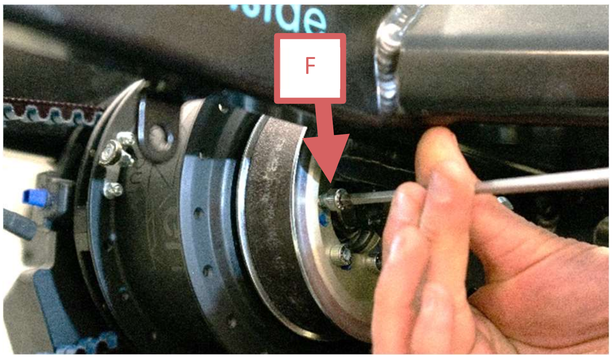
4. When the shaft has moved outward, reopen both clamps [C].

5. Now pull both shafts outward with hand force to guide them out of the differential. When both shafts are no longer in the differential, carefully pull the differential past the middle belt and remove it.



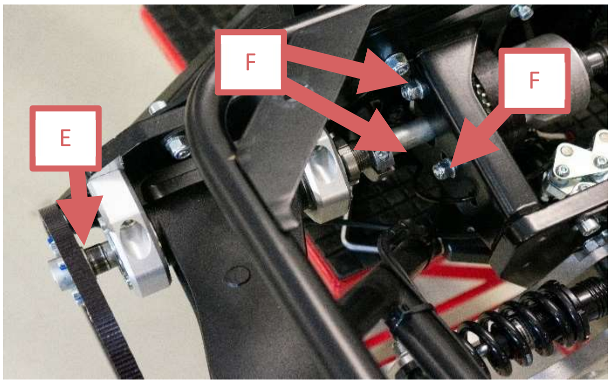


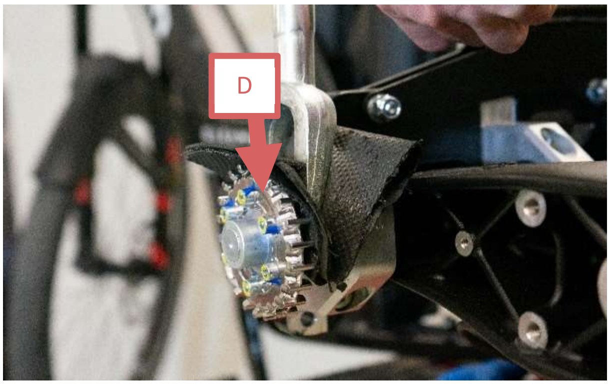
6. If the differential cannot be easily removed from the frame, also remove the 6 screws [F] on the sprocket of the gearbox.



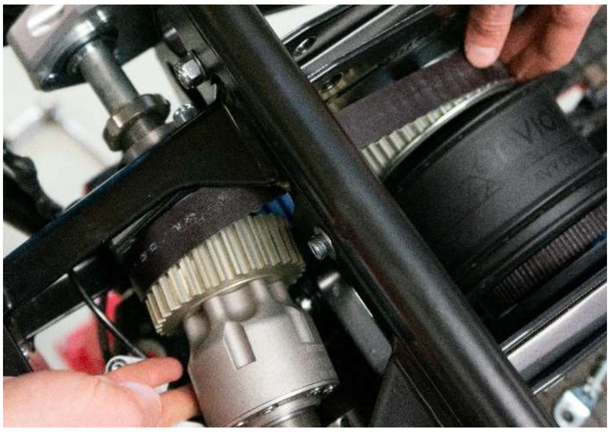
If there is strong resistance beyond manual force when pulling out the shafts, please follow the steps below:

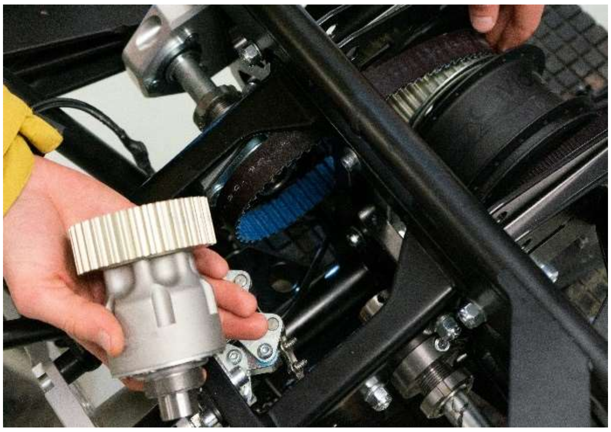
7. Dismantle both sprockets [D] so as not to damage them in the further process or put a non-slip material around the metal parts as protection.
8. Loosen all 3 nuts [F] which fix the ball bearing holder to the frame.
9. Slide an extraction fork between the sprocket adapter [E] and the frame and push the extraction fork towards the frame to push the drive shaft out of the differential on both sides. If a drive shaft is stuck, hit the extraction fork with a hammer from above when it is between the sprocket adapter and the aluminium holder.





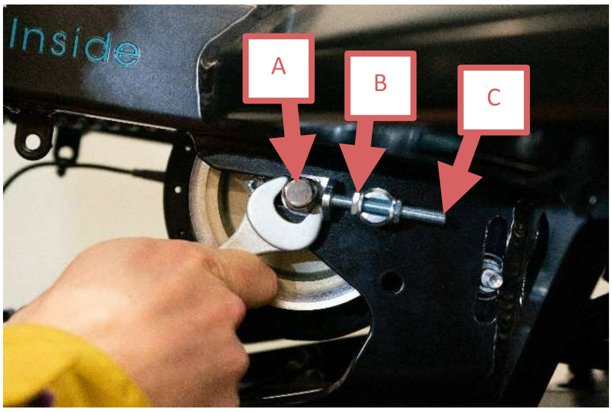
10. When the shaft are no longer seated in the differential on either side, carefully pull the differential past the middle belt and remove it.

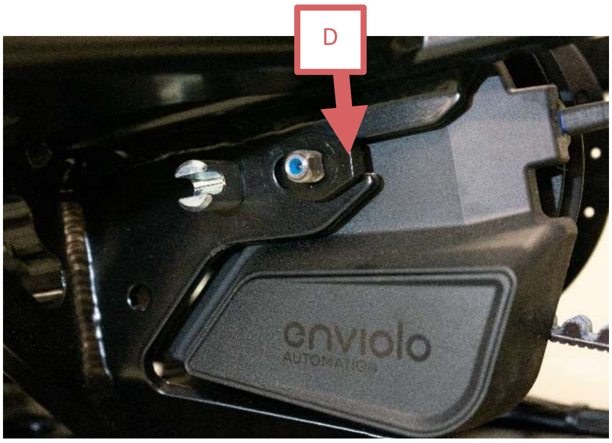


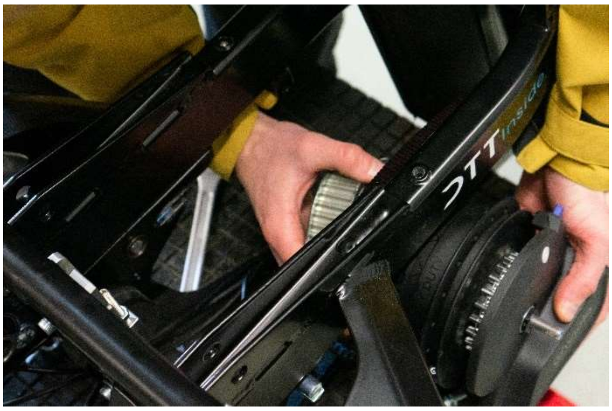


3.4 Removing the Gear Hub

1. Remove both axle nuts [A] of the gear hub with a 15 mm wrench.
2. Loosen the 10 mm nuts [B] on both belt tensioners.
3. Remove both tensioners [C].
4. Remove the anti-rotation washer [D].







Mark the angular orientation of your enviolo manual or AutomatiQ unit with a white pencil so that you use the correct installation angle when reassembling.

5. Disconnect both cables from the enviolo manual unit.

OPTIONAL: Pull the cable out of the enviolo AutomatiQ unit.

6. Carefully pull the gear hub forward out of the frame.
7. Gear hub, differential and middle belt are now completely removed .

4.0

Upgrades & Rework Kits

4.0 Upgrades & Rework Kits

Because we at GLEAM know how important it is to have a vehicle that always must be up to all everyday challenges, we want to keep your vehicle always up to date with regular optimisations, reworks and upgrade kits. So if you see upgrades and rework kits in the upcoming pages that are not yet installed on your vehicle, please contact us at service@gleam-bikes.com and let us know your frame number, purchase date and which parts you need.

We will then take care of it so that you are up to date.

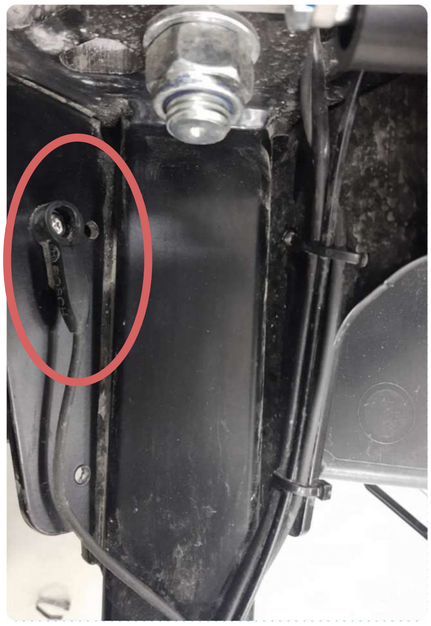
4.1 BOSCH Magnet Sensor Upgrade

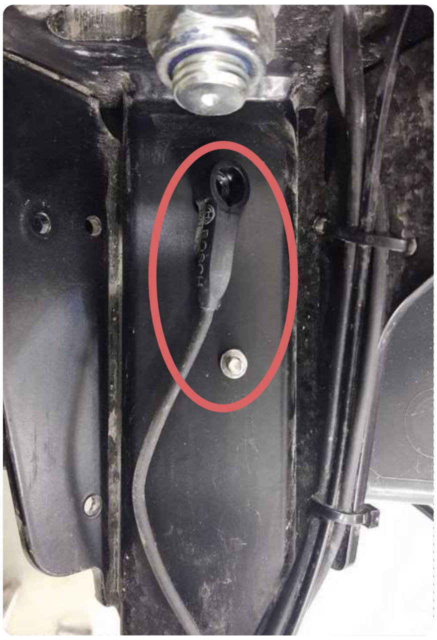
⚠ This step only applies to SeriesX (2019/20) bikes and/or bikes equipped with BOSCH Performance Line CX - Gen 2 drive units with enviolo Automatic+ or AutomatiQ Interface hubs. If you have shifting problems with these interface hubs, please perform this upgrade.

For the procedure as shown in the pictures, it is not necessary to remove the Automatic+/AutomatiQ interface from the enviolo gear hub! However, it is recommended in the course of a gear hub change to perform this upgrade if necessary.

4.1.1 Locating and removing the BOSCH Magnet Sensor

1. If necessary, remove the gear hub including the enviolo Automatic+/AutomatiQ interface hub from the bike. Locate the Bosch magnet sensor inside the bike frame.
2. Remove the magnet sensor from its position by removing the screw and nut with which it is attached.



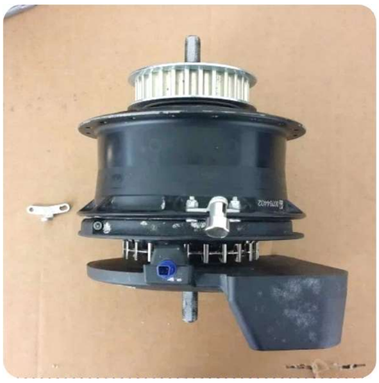


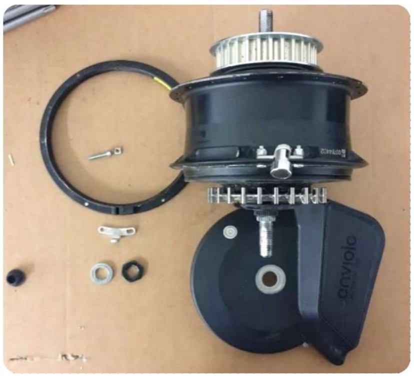
4.1.2 Removing the old Gear Hub Magnet

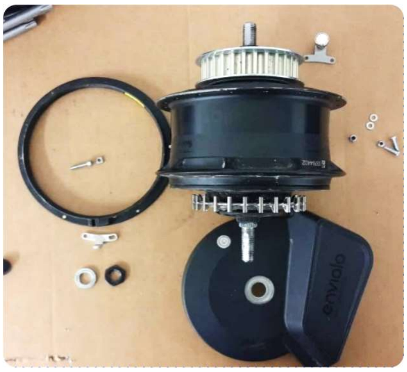
1. Disassemble the outer sensor ring of the enviolo gear hub by loosening the small screw inside the sensor ring.

OPTIONAL: If the screws are difficult to access, you can also remove the interface hub [enviolo AutomatiQ Interface]. To do this, remove the black skinny nut from the interface side axle and pull off the interface.

2. Dismantle the sensor magnet that is already mounted on the enviolo gear hub.
3. Have all bolts and nuts ready for reassembly.

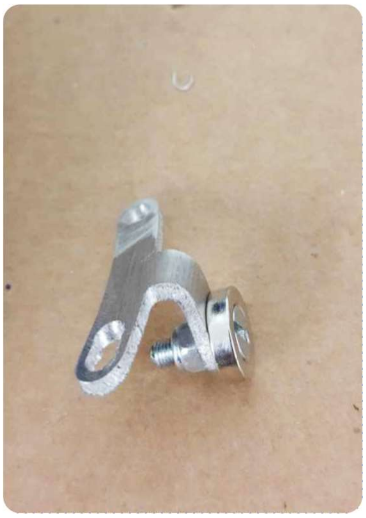


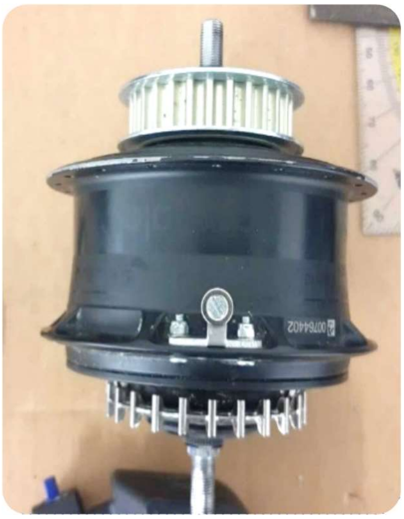


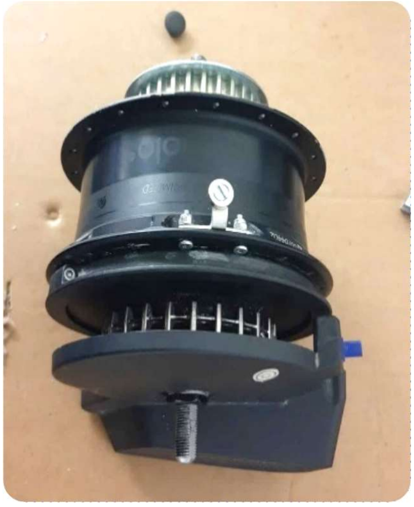


4.1.3 Mounting the new Gear Hub Magnet

1. Check the correct installation of the new magnet.







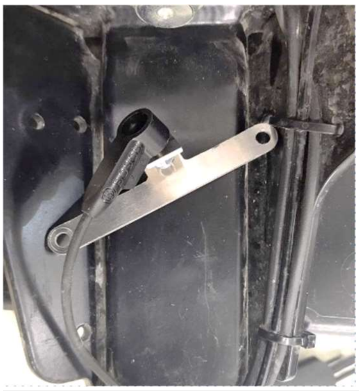
2. Mount the new magnet on the gear hub and use the bolts and nuts of the previous magnet.
3. If previously disassembled, reassemble the outer enviolo sensor ring on the gear hub.

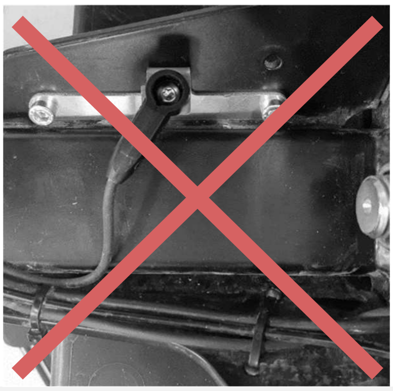
OPTIONAL: Mount the enviolo Automatic+/AutomatiQ interface on the gear hub if it was previously removed. Make sure that the spacer and the black flat nut are correctly aligned. Tighten the black flat nut to 15 Nm. Ensure the correct mounting angle of the interface hub!

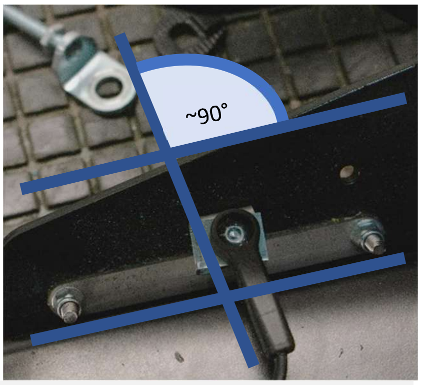
More information about the installation and specifications of the gear hub can be found at https://enviolo.com/en/support.

4.1.4 Mounting the Mounting Plate on the frame

1. Connect the Bosch magnet sensor to the mounting plate and tighten the screw with the nut. Place the mounting plate over the two lower holes.
2. Mount the mounting plate to the frame with two M6x14 screws and two M6 self-locking nuts. The magnet sensor should now be placed in the correct position [~90°C to the frame] on the mounting plate.
3. Put the gear hub back into the frame if it was removed and align the magnetic sensor by rotating the magnet on the gear hub over the sensor. In case of misalignment, reposition the magnetic sensor on the frame and ensure a maximum distance of 4mm between the magnetic sensor and the magnet. The magnet and the sensor, should not be more than 2-6mm apart!







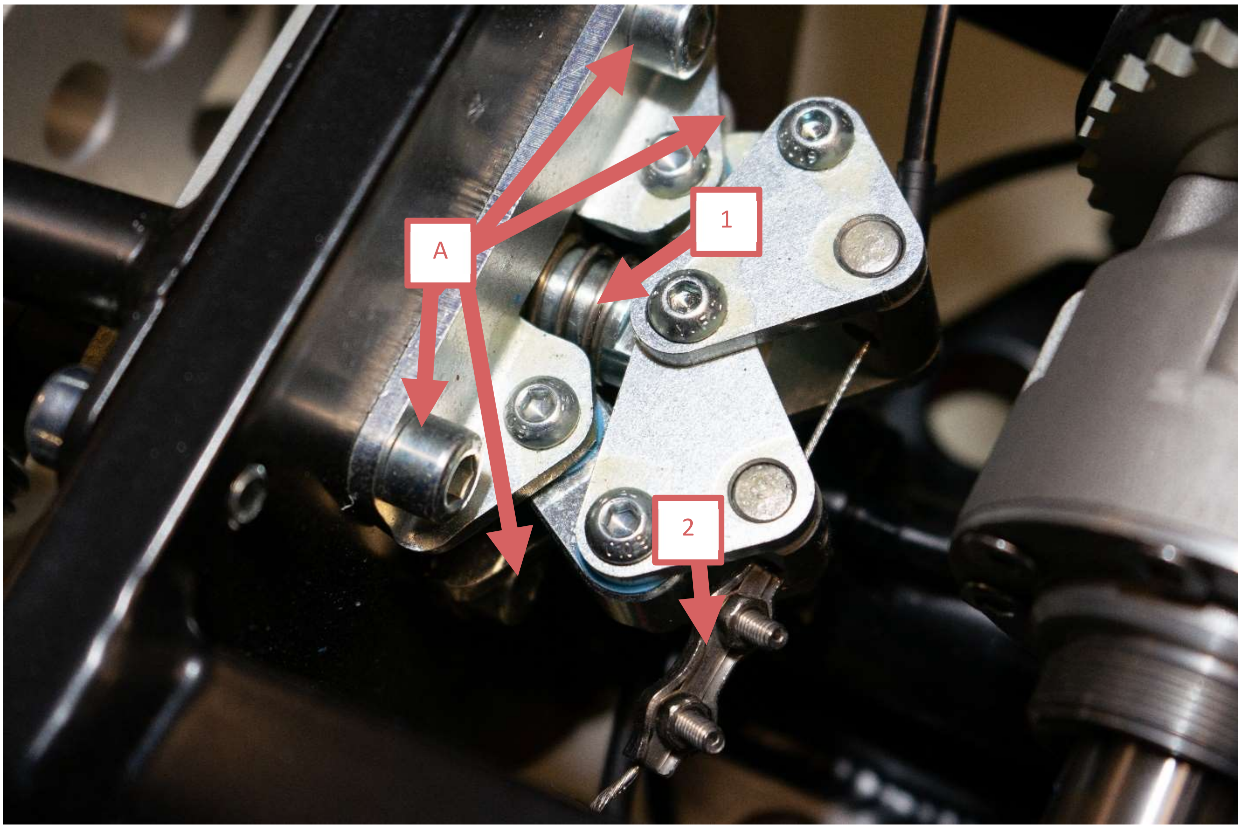
If the magnet sensor becomes loose or is not in the right place, there may be interference with the enviolo automatic hub. This can lead to loud shifting noises, cadence problems when pedaling or an error code on the display!

4.2 Tilt-Lock Upgrade

If the vehicle has the previous Tilt-Lock version (frame before year of manufacture 2021), this can optionally be updated with the Tilt-Lock update kit.

This update kit consists of:

- Stronger return spring [1]
- Additional cable clamp [2]



4.2.1 Assembly of the Tilt-Lock Upgrade Kit

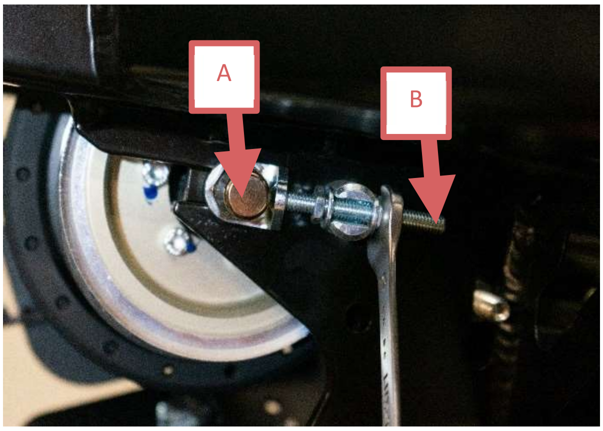
OPTIONAL: Remove the differential (See Gearbox Removal) for easier operation.

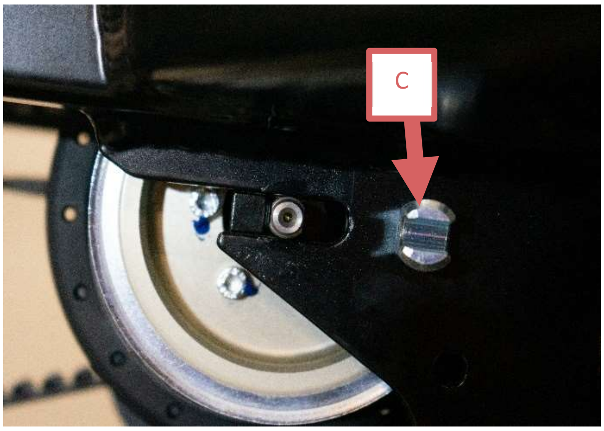
1. Remove the four screws [A] that fix the tilt-lock system to the frame.
2. Pull the tilt-lock system out of the frame.
3. Replace the old spring with the new one.
4. Attach the cable clamp directly at the point where the cable exits the tilt-lock system. Make sure that all screws on the cable clamp are tight and that the cable cannot slip out of the clamp.
5. Replace the tilt-lock system in its intended position.
6. Apply a drop of screw adhesive (medium strength – like Loctite 243) to each of the four screws [A] and screw them back into the threads provided to secure the Tilt-Lock system.
7. Reinstall the differential (see gearbox installation).

ⓘ If you have a bike with a previous Tilt-Lock version, please contact us at service@gleam-bikes.com to get your free upgrade kit!

4.3 Enviolo Axle thread Upgrade Kit

In rare cases, the protruding axle of the gearbox on one side of the frame is too short, so that the gearbox nuts can loosen (frame built before 2020). If the axle length on the center belt side is less than 5mm, we recommend installing an enviolo axle rework kit to prevent the gearbox from rotating due to high leverage forces in the frame.

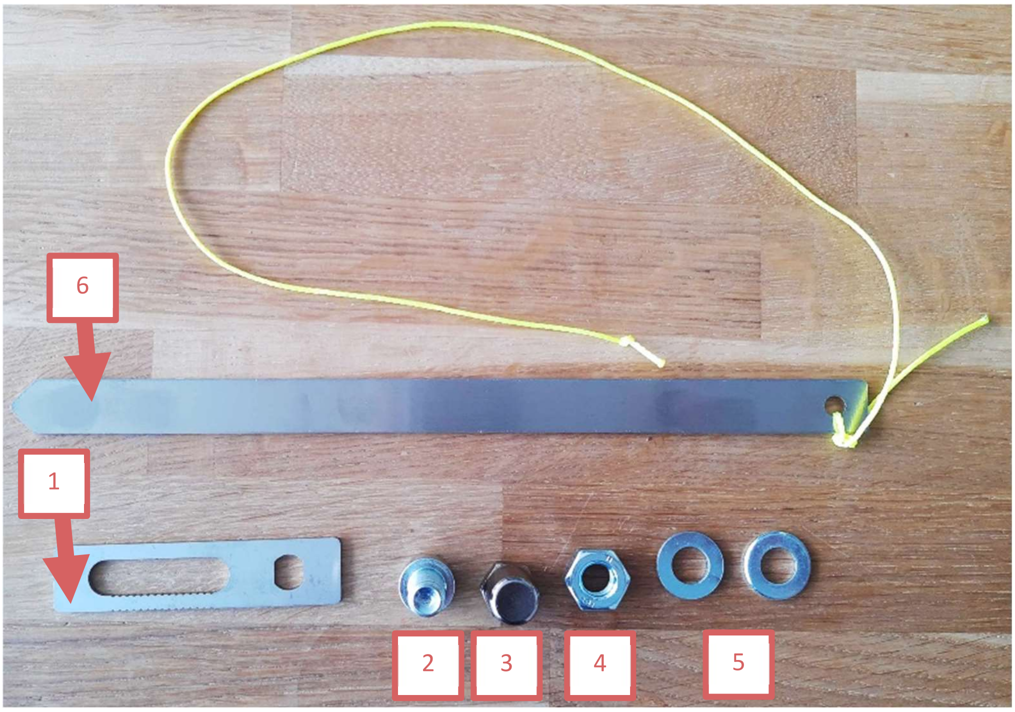




1. Loosen the screws of the centre belt tensioner.
2. Loosen the middle belt tensioner.
3. Remove the enviolo axle nut [A] on the left side.
4. Remove the belt tensioner [B] on the left side.
5. Remove the belt tensioner bracket [C] on the left side.

Tip: Use a slotted screwdriver inside the frame to remove the clip!

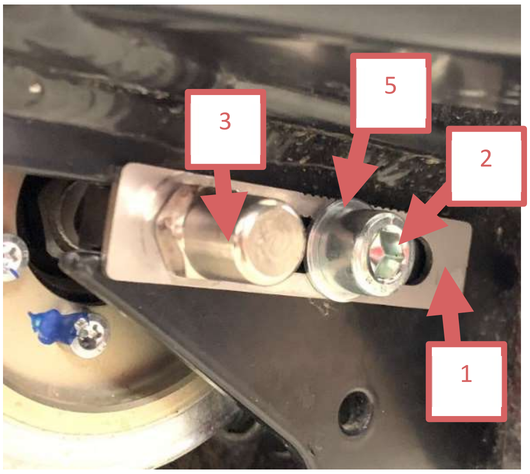
6. Clean the enviolo thread!
7. Place the supplied plate [1] over the enviolo thread and arrange all other parts correctly (see next page).
8. Grease the thread of the M10x20 screw [2]



⚠ Note the arrangement - From the inside of the frame to the outside!

nut [4] | washer [5] | frame | plate [1] | washer [5] | M10x20 bolt [2]) - Tighten everything hand-tight!

9. If necessary, readjust the belt tension of the front belt.
10. Align the enviolo gear hub using the supplied ruler [6] and the alignment cord for a straight middle belt alignment. The linear alignment should be within the tolerance of the excess width of the sprocket.
11. Apply grease to the enviolo nut [3] and tighten the enviolo nuts loosely.
12. Check the front belt tension and center belt alignment and make sure that both belts can run linearly.



13. Tighten the enviolo nuts [1] completely (torque left nut = 20Nm | torque right nut = 35Nm)
14. fully tighten the M10x10 bolt/nut [2]. (Torque = 65Nm)

15. Check the tension of the front belt and the alignment of the middle belt (angular/linear) again!

If it is not correct, go back to "Adjusting front belt tension".

16. Tension the middle belt.
17. Check the middle belt tension.
18. Tighten the screws of the middle belt tensioner.
19. Perform a test drive with load, low gear and maximum motor support.
20. Re-check front belt tension, centre belt tension, gearbox and centre belt alignment and that all fasteners are tight.

4.4 Chain Upgrade Kit

Chain Rework Kits have different sprocket configurations depending on the motor type. Please make sure which motor is installed in your GLEAM bike [Bosch Performance Line CX Gen2 | Polini E-P3+ MX].

A detailed visual description of the motor types can be found in section 6.0 "Calibration of the gear hub".

The following sprockets should be mounted on your bike before installation. Please count the number of teeth of the sprockets to ensure the correct installation of the Chain Rework Kit:

Bosch Performance Line CX Gen2

- Front belt sprocket [On engine] = 24t [24 teeth]
- Front belt rear sprocket [At gear hub] = 24t [24 teeth]
- Front belt = 108t [108 teeth]

Polini E-P3+ MX

- Front belt sprocket [On engine] = 46t [46 teeth]
- Front belt rear sprocket [At gear hub] = 22t [22 teeth]
- Front belt = 108t [108 teeth]

If the sprockets on your bike do not match this configuration, please contact our Customer Service at service@gleam-bikes.com!

4.4.1 Part List - BOSCH Performance Line CX [Gen2]

- 2x 15t [15 teeth] sprocket
- 1x Motorcycle chain [36 Chain rollers]

- 1x Connecting element for the chain [consists of 3 parts].
- 1x Spacer [6-hole Spacer]
- 1x Belt tensioner slider 65mm

4.4.2 Part List - Polini E-P3+ MX

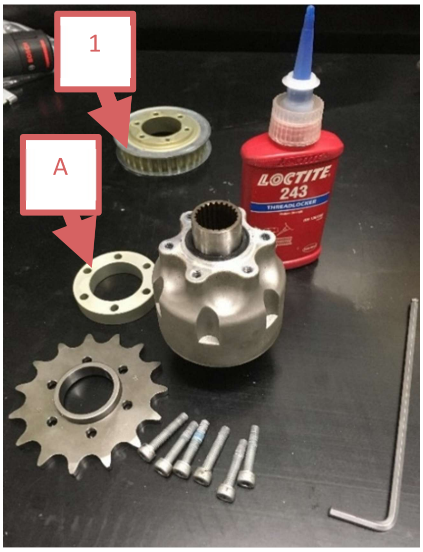
- 1x 15t [15 teeth] sprocket
- 1x 17t [17 teeth] sprocket
- 1x Motorcycle chain [36 Chain rollers]
- 1x Connecting element for the chain [consists of 3 parts].
- 1x Spacer [6-hole Spacer]

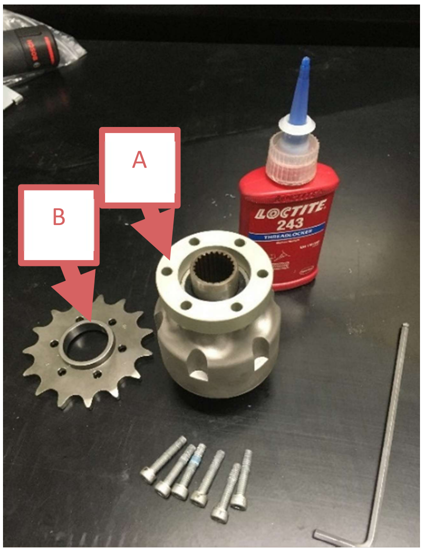
Additional materials and tools needed:

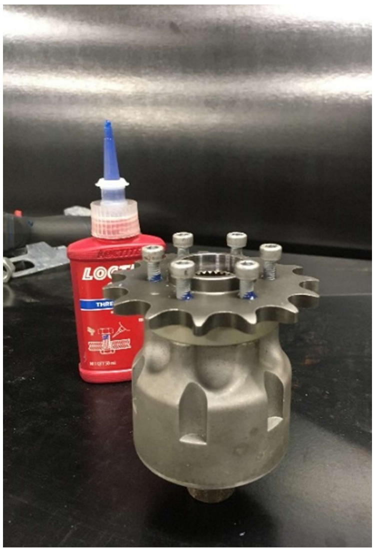
- Loctite 243 [or equivalent "medium strength" screw adhesive]
- Pliers

4.4.3 Installation

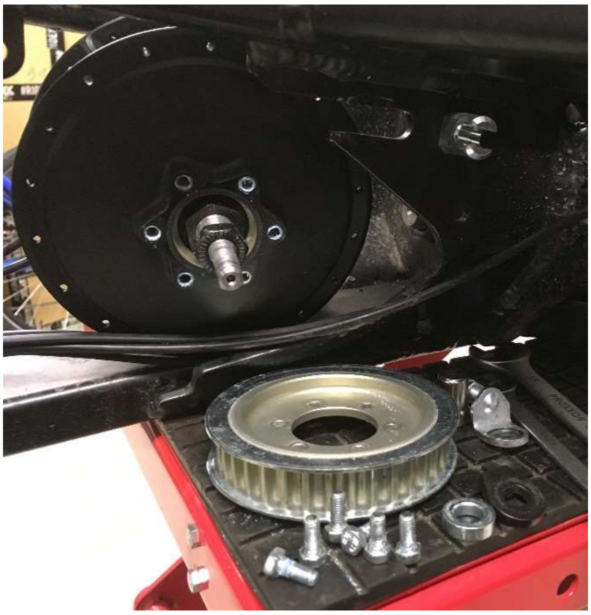
1. Remove the differential, middle belt and gear hub completely from the frame. To do this, follow the steps from part 3.0 "Removing the gear hub“.
2. Remove the sprocket [1] from the differential. Keep the 6x M5x25 screws in a safe place.
3. Clean the 6 screws from the existing thread lock.
4. Place the spacer [A] on the differential and the 15t sprocket [B1] on top. Make sure the sprocket is oriented correctly [machined side against the spacer]
5. Apply a drop of screw glue to each of the 6 screws and tighten them through the sprocket and spacer into the differential.
6. Remove the sprocket from the gearbox. Keep the 6x M5x16 screws in a safe place.
7. Clean the 6 screws from the existing thread lock.
8. Place the 15t sprocket [A1] [For Bosch Performance Line CX - Gen2] or 17t sprocket [A2] [For Polini E-P3+MX] on the gear hub.

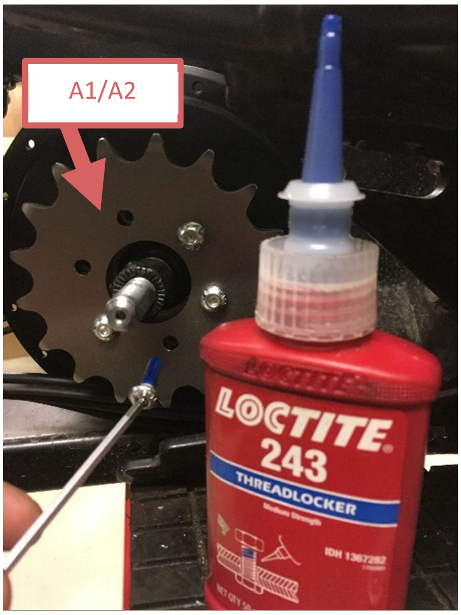




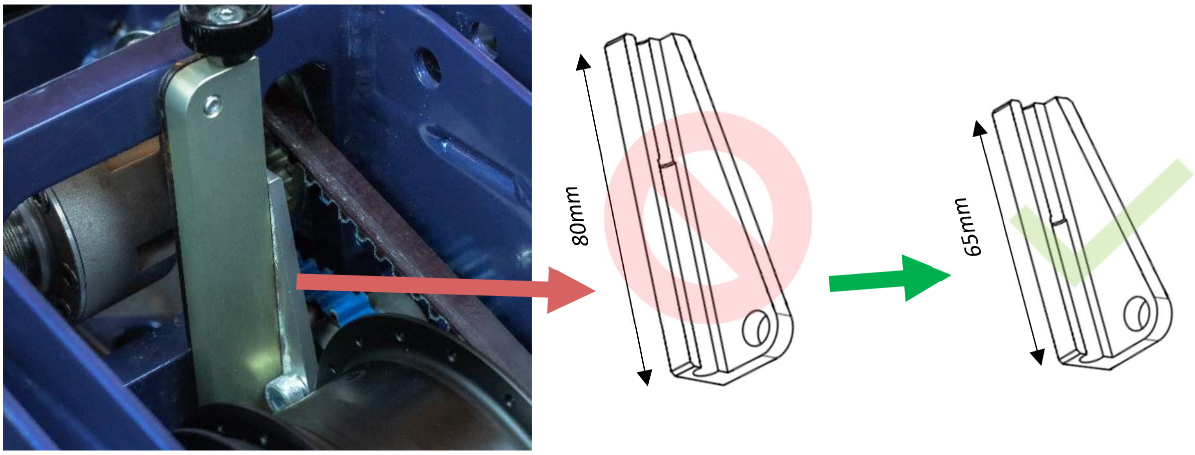


9. Apply a drop of thread lock to each of the 6 existing screws and tighten them with 8Nm through the sprocket into the gear hub. Ensure the correct orientation of the sprocket. [machined side against the hub.

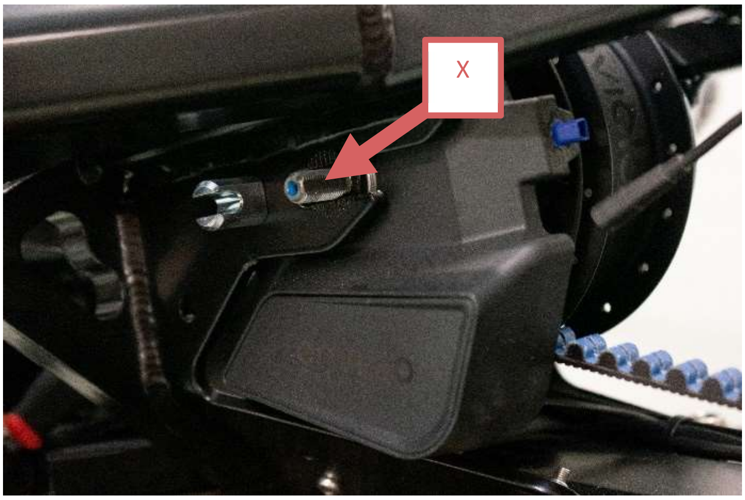




On Bosch Gen2 vehicles, the belt tension slider must be replaced in order to be able to tension the chain adequately. Please check the length of your belt tensioner slider **[S]**. If this is **80mm long**, change to the supplied **65mm slider**.

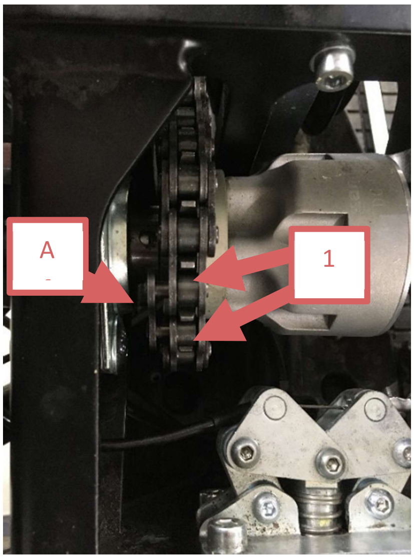


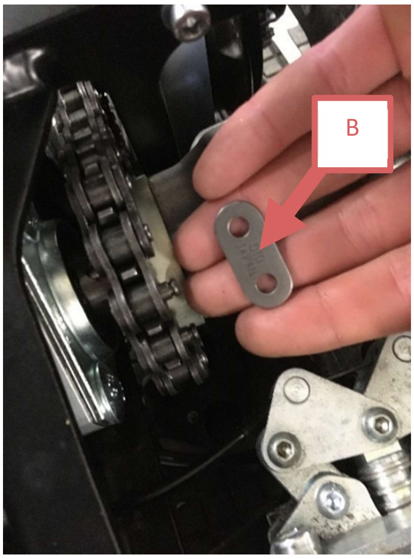
10. Reinstall the gear hub and differential. Refer to steps 5.0 "Installing the gearbox". Note that instead of the belt sprocket on the centre belt side, a chain sprocket has now been installed.
11. In addition, apply bolt adhesive to both sides of the transmission axle [X] before completely installing the axle nuts to prevent the axle nuts from being loosened by vibration. Tighten the left nut to 20Nm and the right nut to 35Nm.

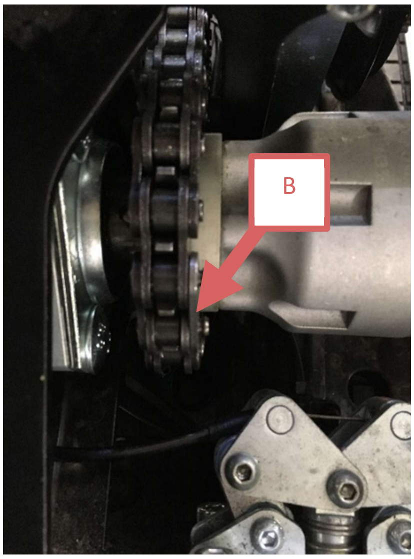


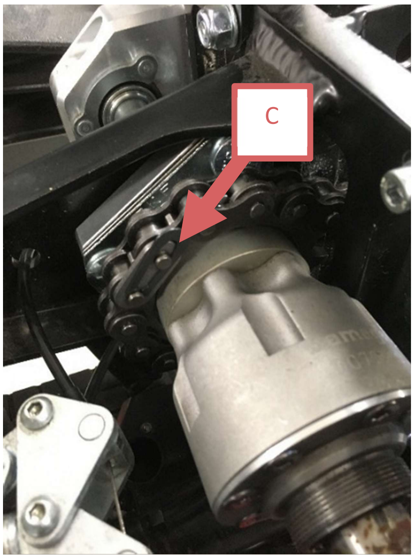
12. Loosen the middle belt tensioner to the lowest position. Follow steps 3.2 "Loosening the middle belt tension“.
13. Now install the chain. Run the chain from the bottom of the gear hub to the bottom of the differential and from the top back to the gear hub. Both ends should be directly opposite each other at the sprocket of the differential [1]“.
14. Press the component with the two pins [A] into both holes of the ends. The direction has no influence. Place the plate [B] on the other side.

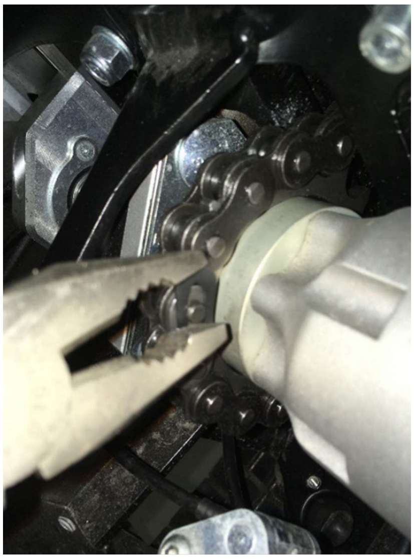
15. Place the clip [C] on top of the plate with the rounded side towards the 'front' and the two tips towards the 'back' in the chain running direction.
16. Squeeze the black part [C] with a pair of pliers to fix it to the metal pins and close the chain completely. Check that the chain clip link is correctly fitted].
17. Increase the chain tension by adjusting the middle belt tensioner. Follow the steps in section 5.8 "Tensioning the middle belt". The chain tension should be set so that the chain cannot jump off the sprocket [~5mm maximum play with hand pressure in both directions].
18. Tighten the fixings holding middle belt tensioner to the frame.

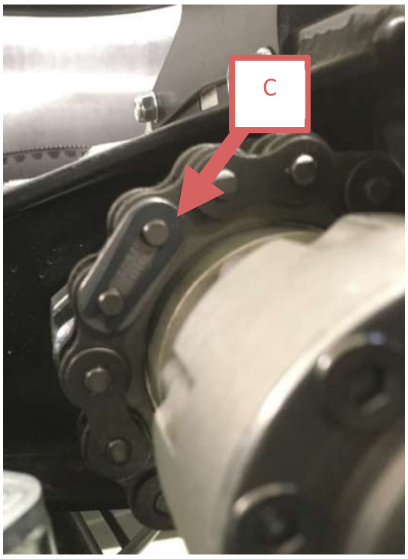












19. Lubricate the chain sufficiently. We recommend an all-weather bicycle or motorcycle chain oil].
20. Check that the chain runs smoothly and quietly. Too much tension on the chain can lead to loud running noise.

4.4.4 Maintenance instructions

By changing the belt to a chain solution, we recommend the user to check the chain regularly for tension, lubrication, and visual condition [rust].

- Regularly check the chain tension every 500-1000km and adjust it if necessary.
- Make sure that the chain is always sufficiently lubricated. Use common motorcycle chains or bicycle chain lubricant.

ⓘ If you need to remove the chain, place a flathead screwdriver on the black part [C] at the open end and hit the screwdriver head with a hammer to remove the part. You can now loosen the chain.

16mm Mid-belt update kit

Part List check

“[G101456] 16mm Mid-Belt Update Kit” consists of:

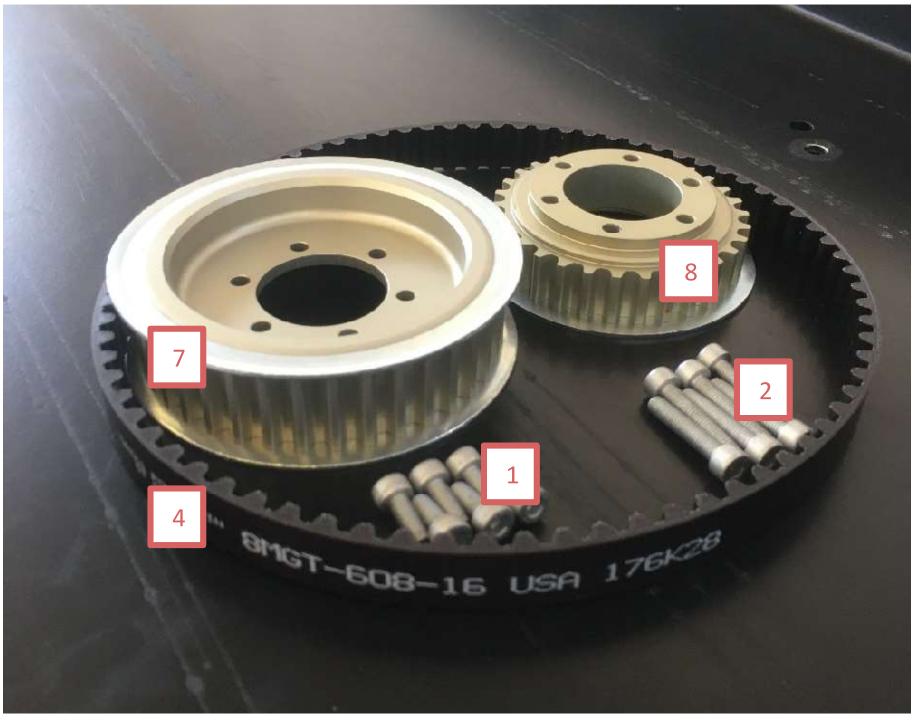
1. 6x [G030142] M5X12 DIN912 HEXAGON SOCKET HEAD CAP SCREW 12.9
2. 6x [G030102] M5x25 DIN912 12.9
3. 1x [G950052] Belt_tensioner_pulley_slider
4. 1x [G101271] GATES POLYCHAIN GT CARBON 8MGT 608 16
5. 5x [G101304] Shim washer, 10x16x0,5, DIN988 Stainless
6. 5x [G101305] Shim washer, 10x16x1,0, DIN988 Stainless
7. 1x [G098024] Belt_drive_38T
8. 1x [G101457] Belt_drive_30T, 12mm to 16mm, One retaining wall

   (Retaining wall have to be removed from the “spacer side”)

   + G101169 Enviolo Thread update kit

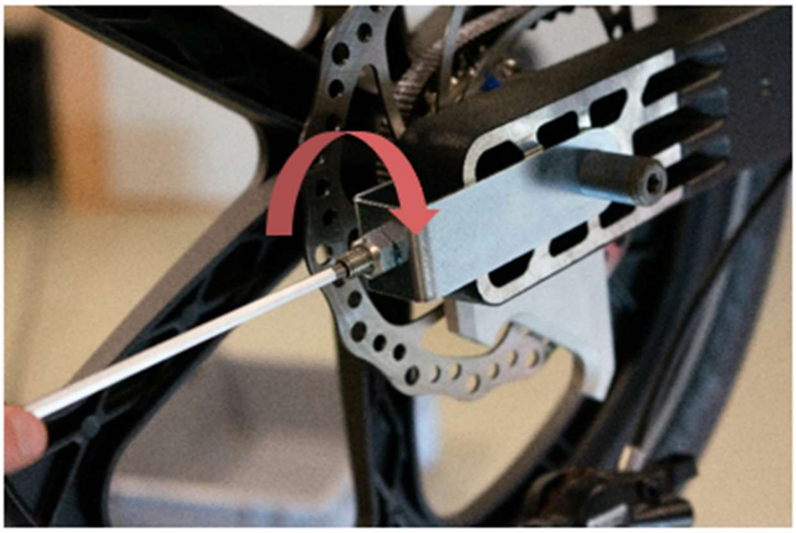
Needed for the assembly:

7Nm torque on bolts and Loctite blue: [G030142], [G030102]



3.1 Loosening the Rear Belt Tension

5. Loosen both axle nuts with a 24 mm wrench. Hold the end of the axle with an Allen key against the direction of rotation of the axle nut.
6. Loosen the nut at the end of the swingarm on the thread of the belt tensioner and release the tension with a 4 mm Allen key and a 13 mm wrench by turning it clockwise. Both belts are now completely loose.

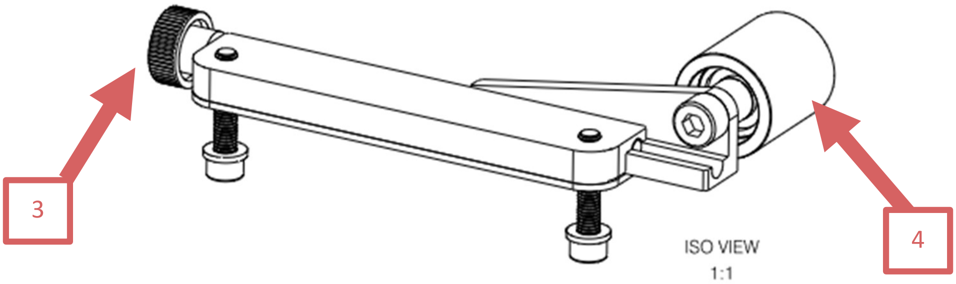


7.

8. Pull both rear wheels out of the swing arms, being careful not to damage the brake hoses.
9. Remove the rear belts form the rear wheel sprockets and put back the rear wheel into the swingarm and loosely turn on the axle nut on the axle. This step is only needed to ensure the safety of the brake hoses during the service process.

3.2 Loosening the Middle Belt

6. Loosen the two fixing bolts [1] & [2] of the middle belt tensioner. These should only be loosened slightly and not removed completely! The first bolt is located above the differential, the second bolt is located below the differential.
7. Loosen the middle belt tension as far as possible by turning the threaded rod [3] counter clockwise on the centre of the belt tensioner. This will make the tensioner pully [4] move downwards.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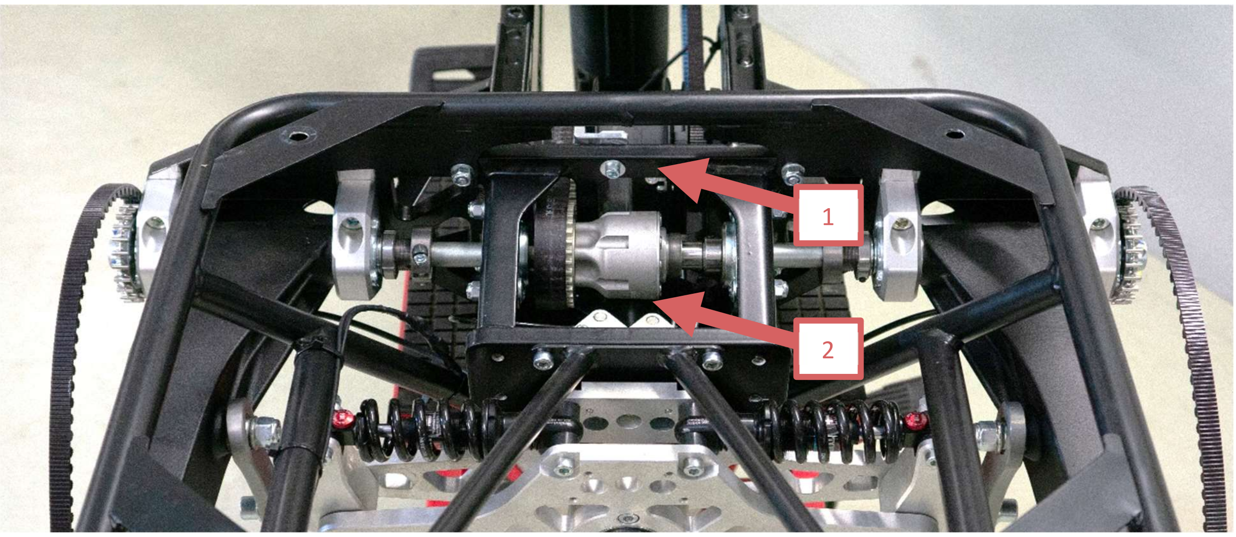
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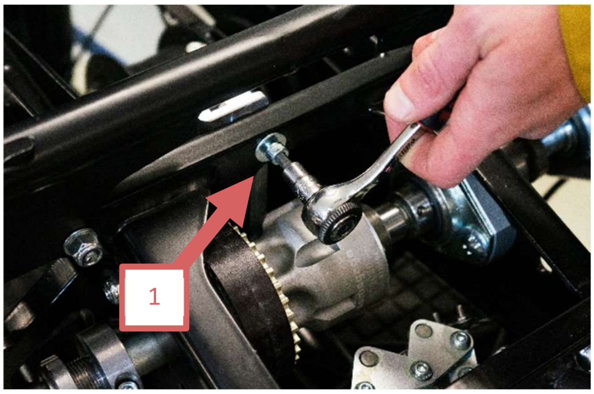
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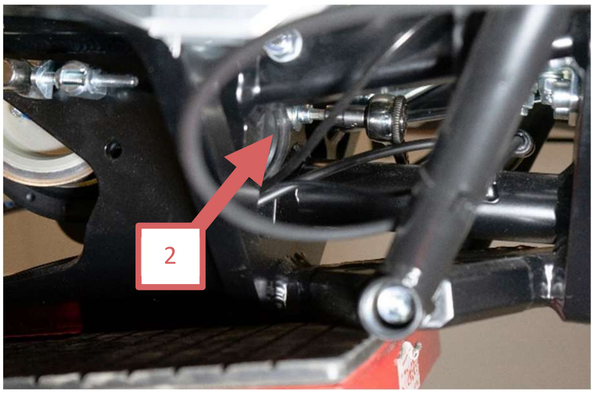
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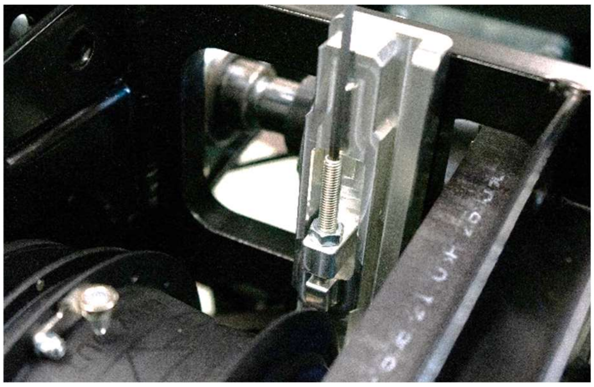
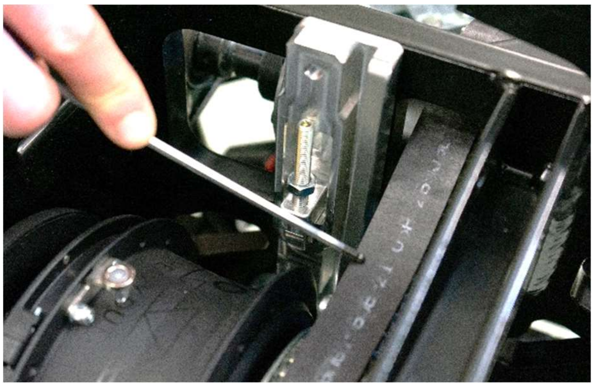
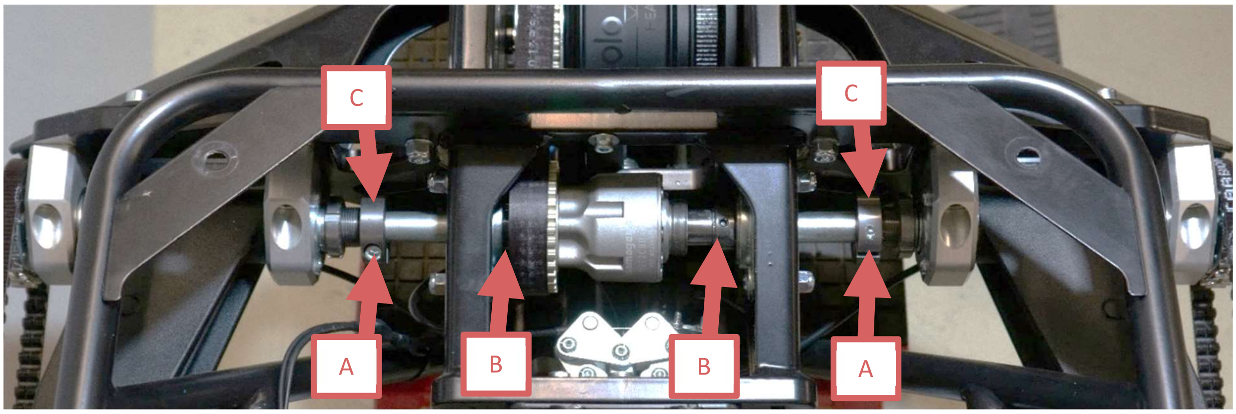




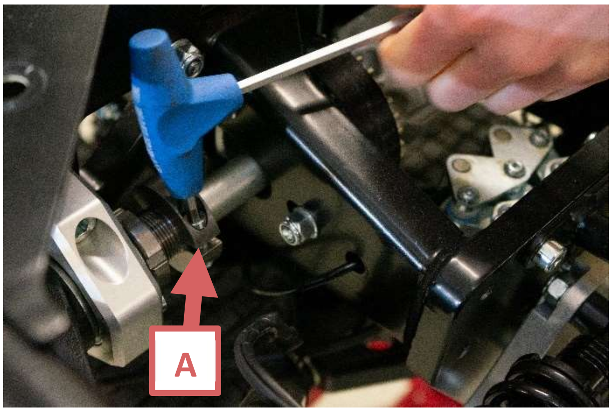
3.3 Removing Drive Shafts & Differential

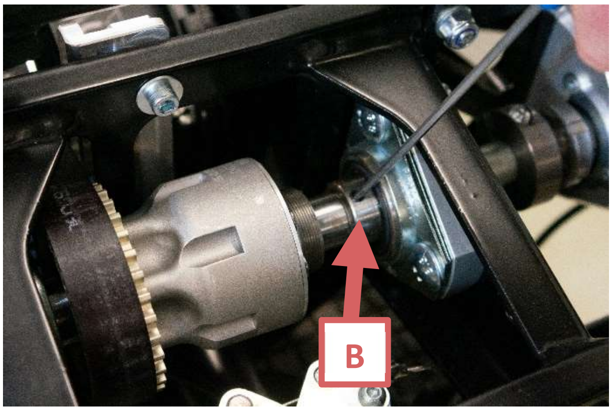


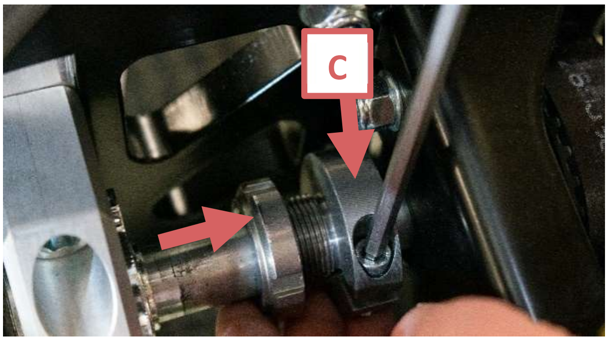
11. To remove the drive shaft, first loosen 2x collar screws [A] and 4x set screws [B].

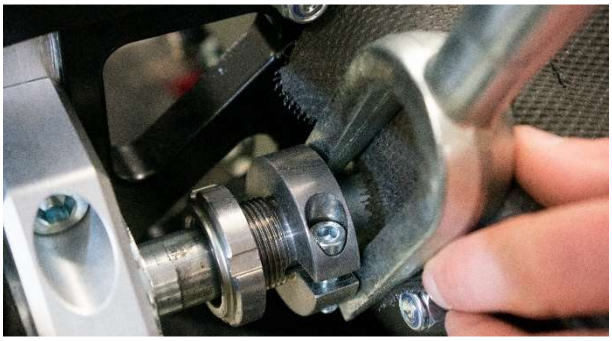
12. Move the clamps [C] in the direction of the differential so that there is still enough space to insert the extraction fork and then tighten the clamp.

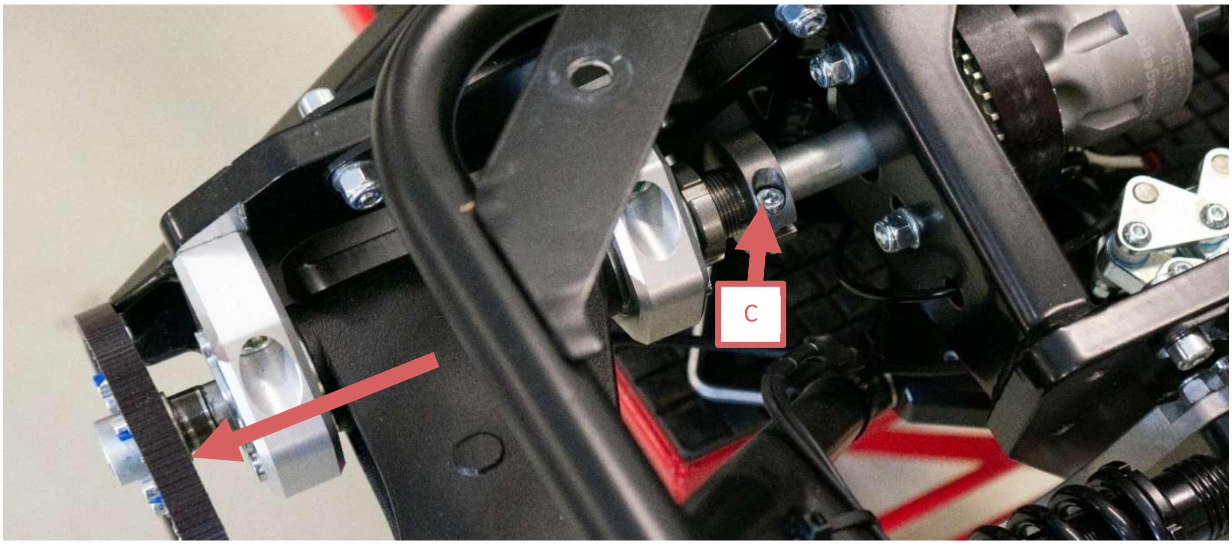
13. Place a non-slip material around the metal parts for protection. Place the extraction fork between the clamp [C] and the frame and push the extraction fork towards the differential to push the drive shaft out of the differential.





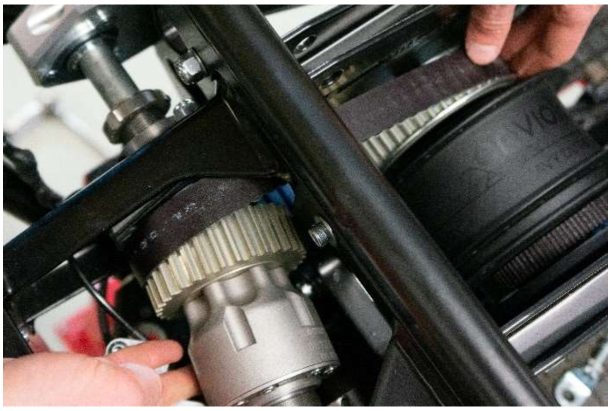


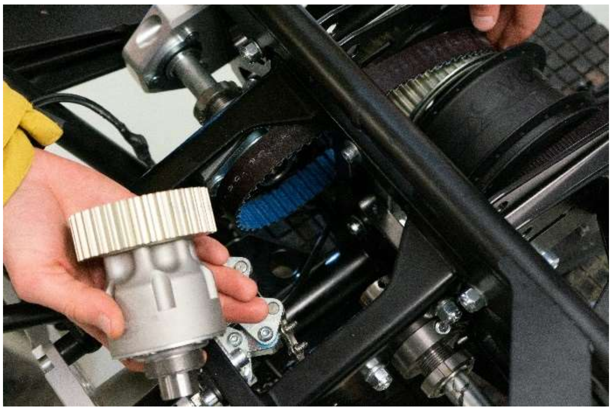




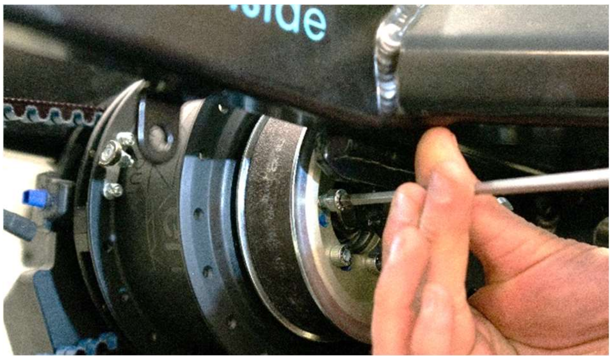
14. When the shaft has moved outward, reopen both clamps [C].

15. Now pull both shafts outward with hand force to guide them out of the differential. When both shafts are no longer in the differential, carefully pull the differential past the middle belt and remove it.



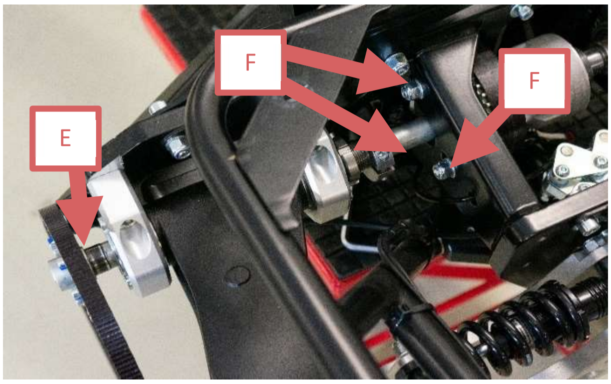


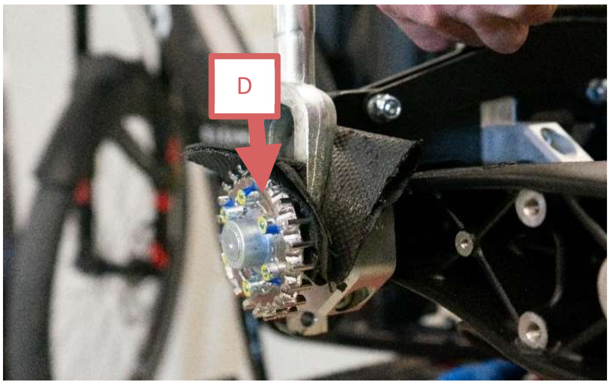
16. If the differential cannot be easily removed from the frame, also remove the 6 bolts on the sprocket of the Enviolo gearbox.



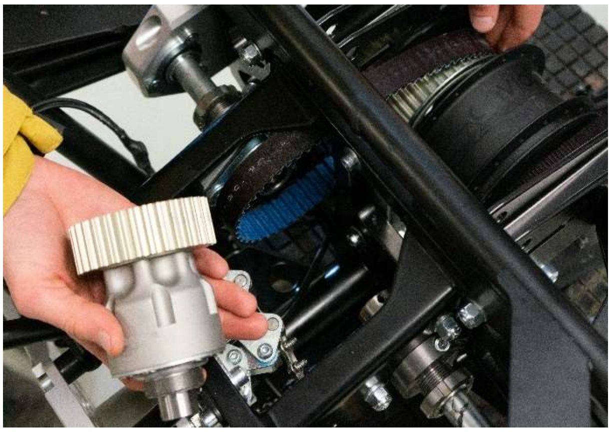
If there is strong resistance beyond manual force when pulling out the shafts, please follow the steps below:

17. Dismantle both sprockets [D] so as not to damage them in the further process or put a non-slip material around the metal parts as protection.
18. Loosen all 3 nuts [F] which fix the ball bearing holder to the frame.
19. Slide an extraction fork between the sprocket adapter [E] and the frame and push the extraction fork towards the frame to push the drive shaft out of the differential on both sides. If a drive shaft is stuck, hit the extraction fork with a hammer from above when it is between the sprocket adapter and the aluminium holder.



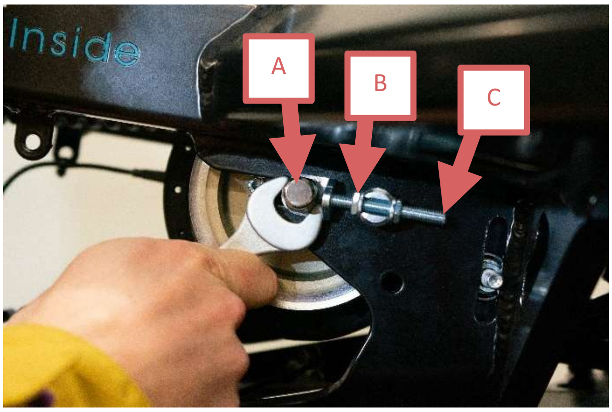


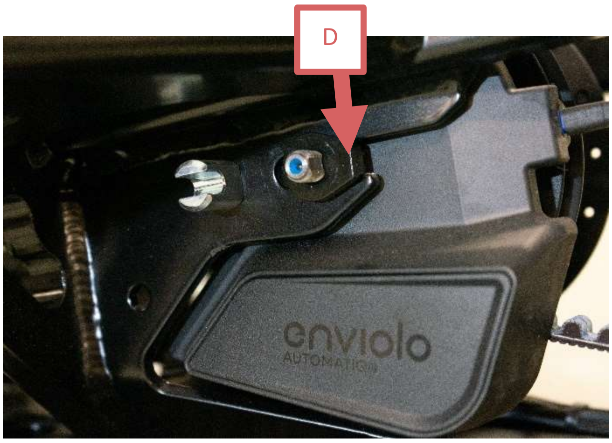
20. When the shafts are no longer seated in the differential on either side, carefully pull the differential past the middle belt and remove it.

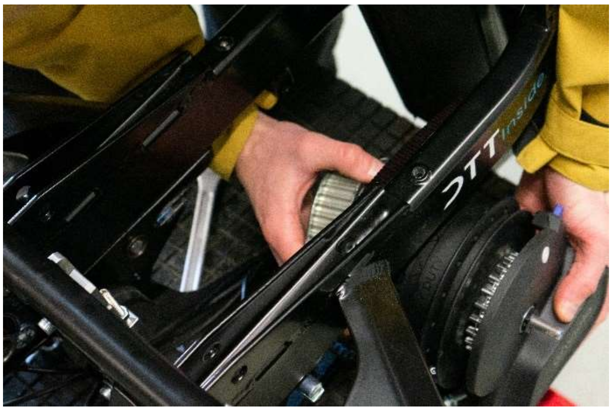


3.4 Removing the Gear Hub

8. Remove both axle nuts [A] of the gear hub with a 15 mm wrench.
9. Loosen the 10 mm nuts [B] on both belt tensioners.
10. Remove both tensioners [C].
11. Remove the anti-rotation washer [D].







> Mark the angular orientation of your enviolo manual or AutomatiQ unit with a white pencil so that you use the correct installation angle when reassembling.

12. Disconnect both cables from the Enviolo manual unit or pull the cable out of the enviolo AutomatiQ unit.
13. Carefully pull the gear hub forward out of the frame.
14. Gear hub, differential and middle belt are now completely removed.

Assembly of the [G101456] 16mm Mid-Belt Update Kit

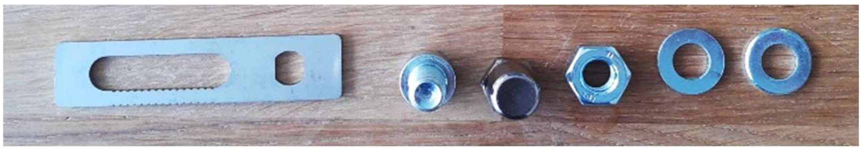
“[G101456] 16mm Mid-Belt Update Kit” consists of:

1. 6x [G030142] M5X12 DIN912 HEXAGON SOCKET HEAD CAP SCREW 12.9
2. 6x [G030102] M5x25 DIN912 12.9
3. 1x [G950052] Belt_tensioner_pulley_slider
4. 1x [G101271] GATES POLYCHAIN GT CARBON 8MGT 608 16
5. 5x [G101304] Shim washer, 10x16x0,5, DIN988 Stainless
6. 5x [G101305] Shim washer, 10x16x1,0, DIN988 Stainless
7. 1x [G098024] Belt_drive_38T
8. 1x [G101457] Belt_drive_30T, 12mm to 16mm, One retaining wall

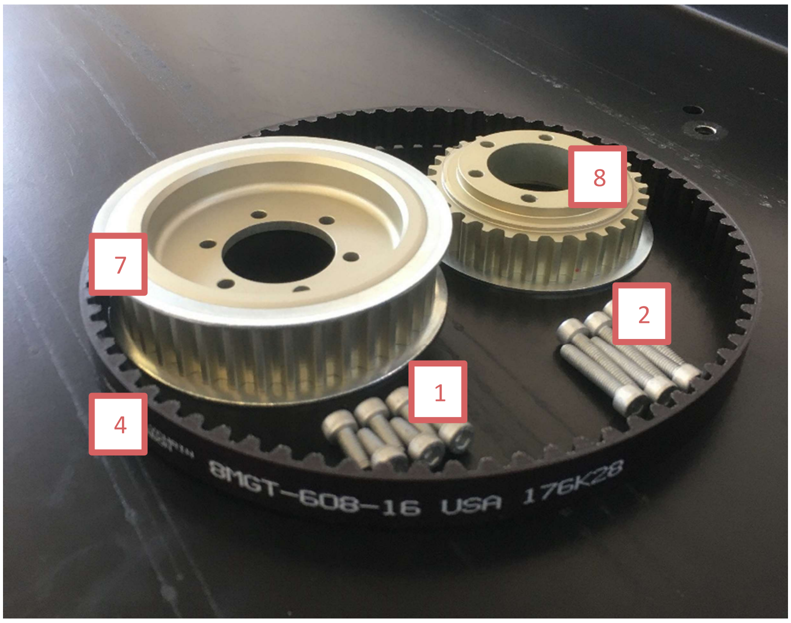
   (retaining wall have to be removed from the “spacer side”)

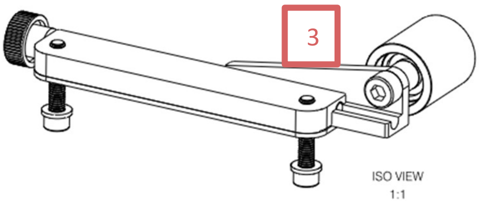
G101169 Enviolo Thread update kit :

Needed for the assembly:

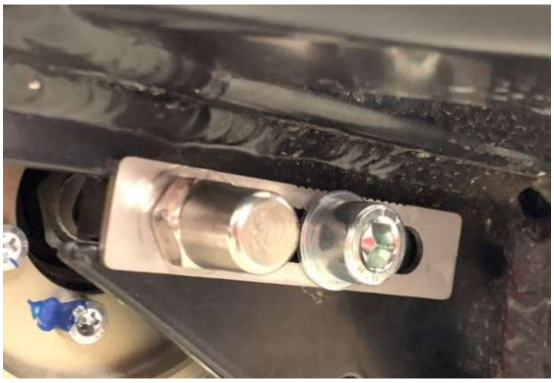


7Nm torque on bolts and Loctite blue: [G030142], [G030102]





1. Check if the "[G950052] Belt_tensioner_pulley_slider" has the same dimensions on your bike as you received with the kit. If the part that is mounted to your bike is longer than what you received in the 16mm update kit you need to change it to the shorter one.
2. Mount "[G098024] Belt_drive_38T" with 6x "[G030142] M5X12 DIN912 HEXAGON SOCKET HEAD CAP SCREW 12.9" on the Enviolo. Use 7Nm torque on bolts and Loctite blue.
3. Put "[G101271] GATES POLYCHAIN GT CARBON 8MGT 608 16" over the Enviolo gear hub and place it back into the frame.
4. Check if there is any air gap between the frame`s horizontal dropouts and the Enviolo. If there is any air gap, use the "[G101304] Shim washer, 10x16x0,5, DIN988 Stainless" or "[G101305] Shim washer, 10x16x1,0, DIN988 Stainless" to space out the air gap.
5. Mount "[G101457] Belt_drive_30T, 12mm to 16mm, One retaining wall" to the differential with 6x "[G030102] M5x25 DIN912 12.9" bolts. The differential has to mate the sprocket on the spacer side, where there is no flange. Use 7Nm torque on bolts and Loctite blue.
6. Assemble the Enviolo rework kit on the left side of the frame. Please refer to the "Enviolo Axle thread Upgrade Kit" section of the manual for further details.



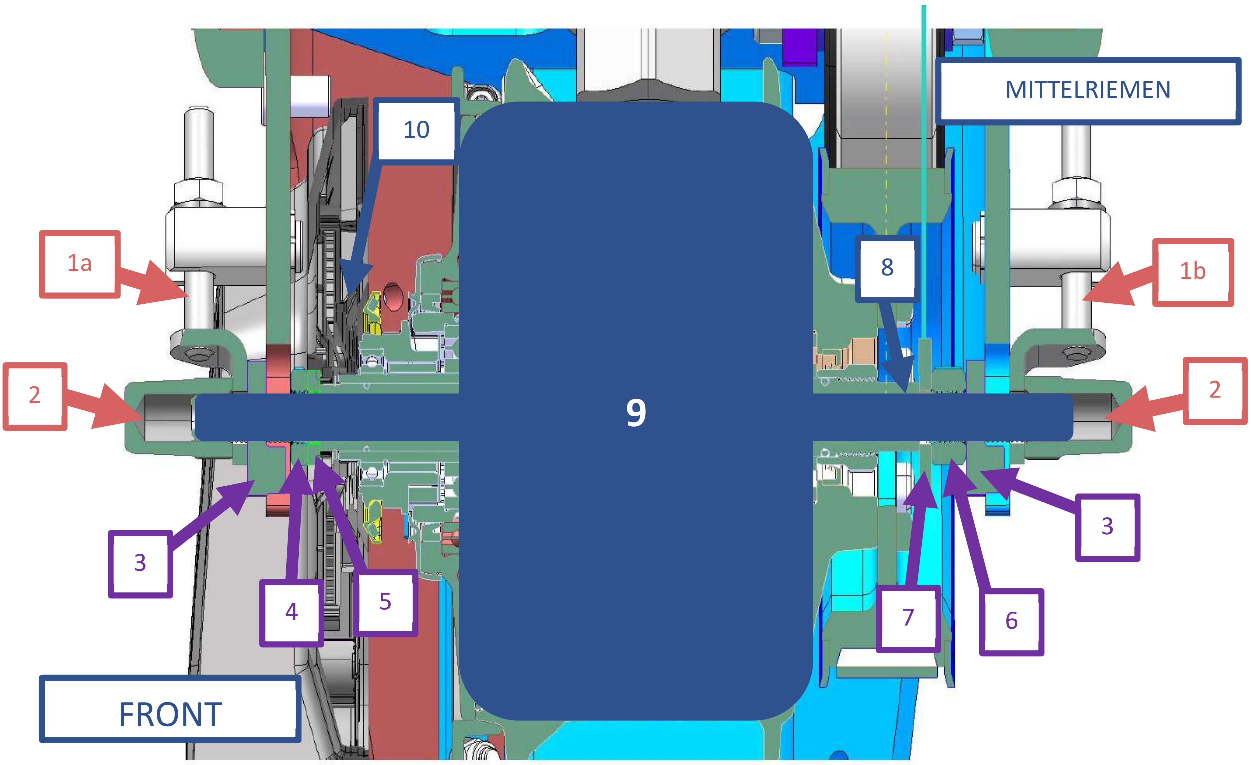
7. From this point on, the assembly process is the same as the disassembly process but in reversed order.
8. Place the differential inside the 16mm middle belt and put the rear belts back on the driveshaft sprockets.
9. Push the driveshafts back into the differential on both side while the rear belts sitting on the driveshaft sprockets.
10. Push 2x driveshaft collars to the swingarm and tighten the bolts with 7Nm. Tighten 4x grub screws with 1.5 Nm.
11. Take the loosely mounted rear wheels out of the swingarm and put the rear belt back on the rear wheel sprockets. Put the rear wheels back into the swingarm and adjust the rear belt tension by turning the tensioner at the end on the swingarm clockwise. You have to set a lower belt tension at this point, because the tension will increase on the rear belts while you tighten the rear axle nuts with the 24mm wrench. After the rear axle is tight, check the rear belt tension. If the tension is too high, loosen the rear axle nut and turn the rear belt tensioner counter clockwise.

5.0

Installation of the Gear Hub

5.0 Installation of the Gear Hub

In this diagram you can see the correct arrangement of the gear hub in the frame. Please note that models from 2021 or earlier have different dimensions of the components. For instructions on these models, please contact our customer service directly at service@gleam-bikes.com.



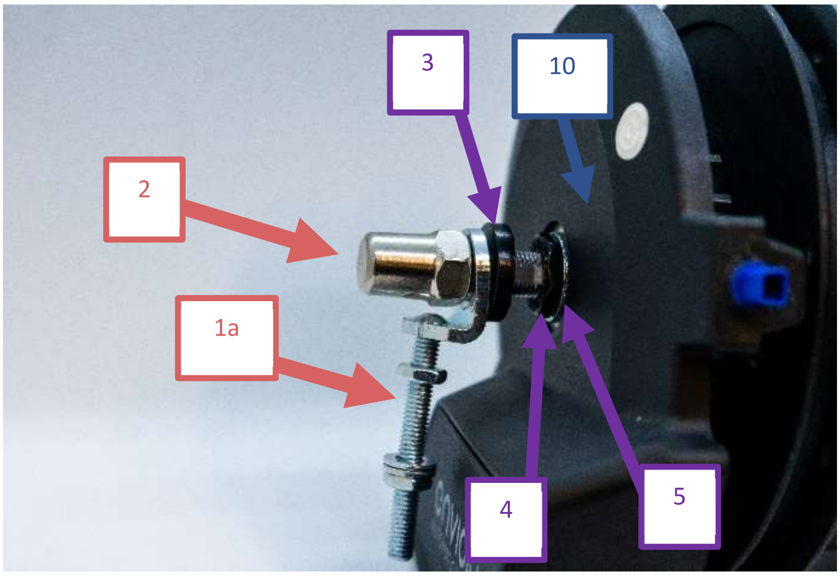
1	Belt tensioner - short
1b	Belt tensioner - long
2	enviolo gear hub axle nut
3	enviolo anti-rotation washers
4	enviolo skinny nut - narrow
5	Spacer - right
6	enviolo nut - thick
7	Spacer - Left
8	Gear hub axle
9	Gear hub
10	enviolo Manual / AutomatiQ Interface

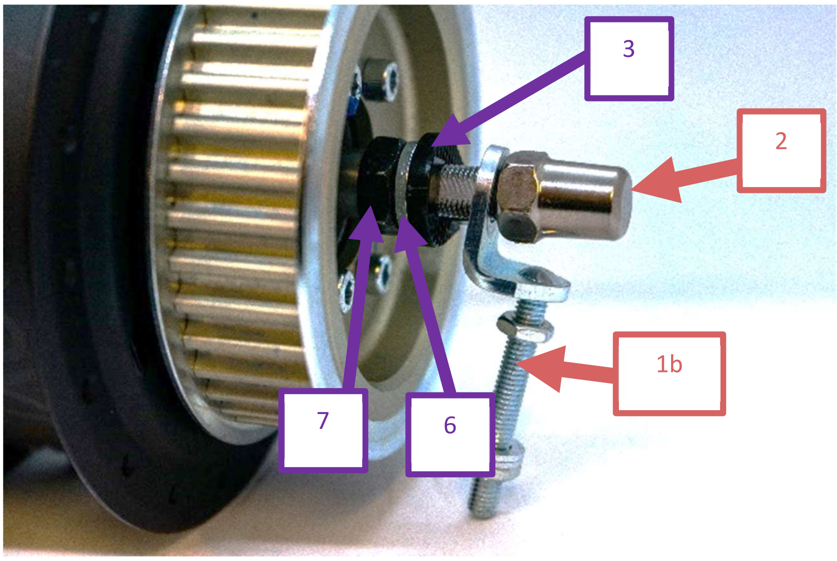
⚠ For proper assembly of the gear hub including the manual shift interface or AutomatiQ interface, please align all components as described in this manual.

For more information and warranty claims for enviolo products, please visit their website.

https://support.enviolo.com/

Please be sure to provide the serial number of the gear hub and shift interface for warranty claims.





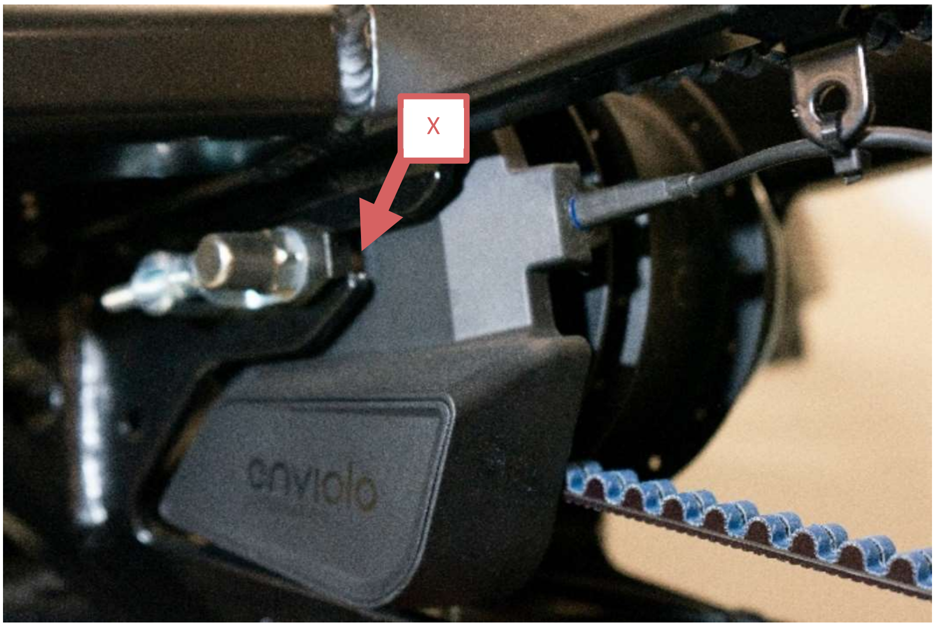
7.1 Angle of the enviolo shifting interface

The gear hub and shift interface should never be separated from each other. However, if damage occurs to one of the two components and they therefore need to be replaced, the arrangement and the installation angle are decisive for the adequate functioning of the drive.

The correct angle of the manual or AutomatiQ interface defines the position of the interface and gear hub within the frame.

To ensure that the interface does not slip and become damaged during pedalling, set the correct angle when assembling the shift interface and gear hub.

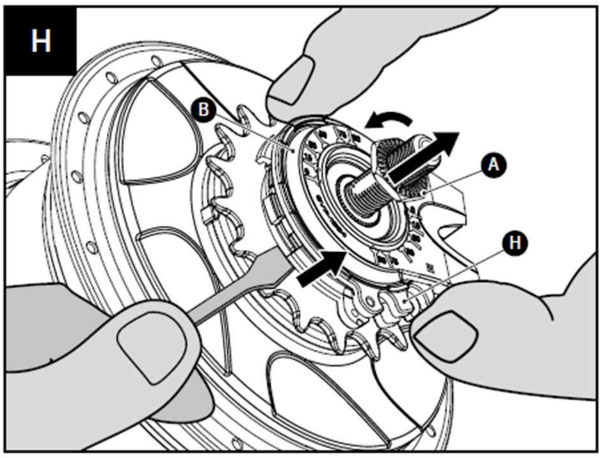
To facilitate this, it is recommended that a mark be made on the shift interface [X] when the gear hub is removed. This mark can be scratched or marked with a white marker.

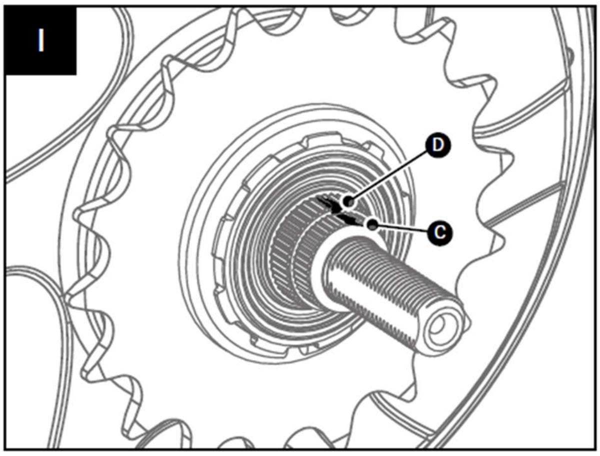


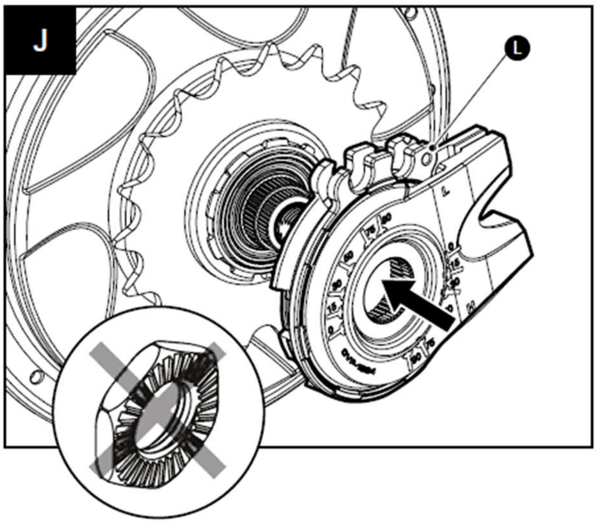
7.2 Installation of a new gear hub with manual gear shifting

If you have a manual shift configuration and are installing a new transmission, please make sure you follow the steps below to properly prepare the shift hub for manual shift installation!

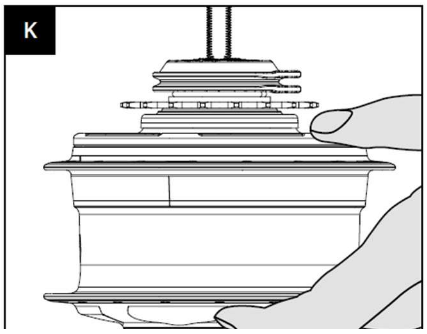
1. If the manual hub interface is not installed correctly, the full ratio range of the internal gear hub may not be available, and the full overdrive must be reset.
2. If installed on the bike, shift the hub as far as possible into overdrive "H" and remove the gear hub.
3. [H] Remove the right nut (A) that secures the manual hub interface, then remove the manual hub interface (B) by carefully lifting it from underneath.
4. [I] If the spline nut (C) and shift drive (D) markings are not aligned, the full overdrive must be reset.

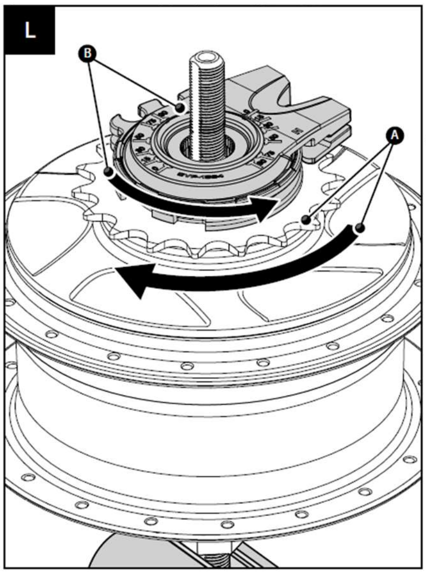






5. If the markings are not obvious, full overdrive should result in the hub/wheel spinning ~1.6-2 times for each revolution of the sprocket, depending on the hub gear. Also check your hub gear specification for the appropriate full overdrive ratio.
6. [J] Set the manual hub interface to the "L" position with full underdrive (note that this is opposite of normal installation). Reassemble the manual hub interface (the angular position is not important), leaving the right nut unassembled.





7. The manual hub interface is used in the following steps to shift the hub into full overdrive.
8. [K] Mount the enviolo hub in a vice or jig as shown and clamp it to the left axle faces. If no vice is available, mounting in the bike frame is possible, just tighten the left anti-rotation device and the axle nut to allow rotation of the manual hub interface
9. [L] While driving the hub clockwise with the sprocket (A), turn the manual hub interface (B) counter clockwise towards the full overdrive position "H" until a firm stop is felt. Repeat this rotation 2-3 times, driving the hub clockwise and rotating the manual hub interface back and forth until a firm stop is felt towards (but probably not in) the full overdrive "H" position.
10. The specified position of the manual hub interface is irrelevant in this step.
11. When full overdrive is found, the hub should rotate approximately 1.6-2 times for each revolution of the sprocket.
12. If full overdrive is found, remove the manual hub interface according to step 4.
13. Check that the markings on the spline nut and shift dog match as per step 5 in this chapter.
14. Install the manual hub interface.

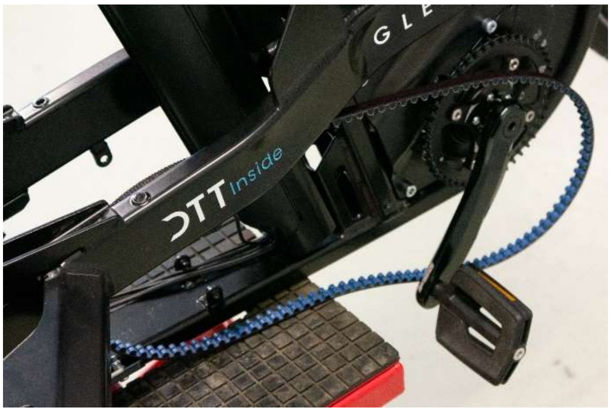
If the gear hub is not reset correctly before installation with a manual configuration, the possible shift range will be significantly limited and thus negatively affect the driving behavior. Therefore, make sure that the gear hub to be installed is set in the "full overdrive" ratio!

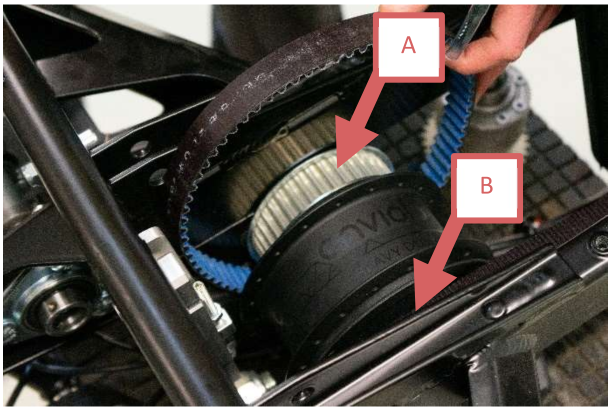
More information about the installation and specifications of the gear hub can be found at www.enviolo.com/en/support/

5.3 Installing the Front and Middle Belt

If the front or middle belt needs to be replaced, this must be done before installing the gear hub. Make sure that the belts to be installed do not show any strong signs of abrasion, cracks or other damage!

1. Thread the middle belt onto the sprocket and the front belt over the motor and sprockets.
2. Place the middle belt on the left gear sprocket [A] and the front belt on the right [B] and carefully slide the gear hub into the frame holes.





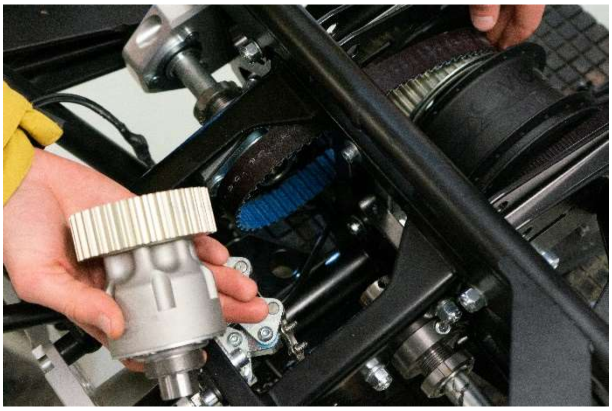
If you have loosened the left gear sprocket [A] from the gear hub in the previous step 3.3, continue as described above, but wait until step 7.0 before you screw the left gear sprocket back onto the gear hub!

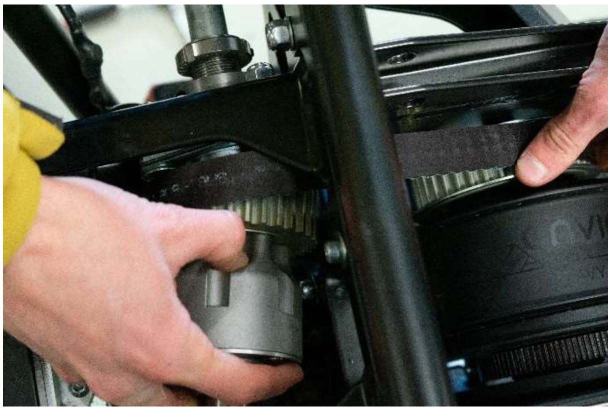
3. Push the gear hub in the direction of the middle belt tensioner and only continue when the gear is perpendicular to the frame in the mount and both belts are force-fitted on their sprockets.

5.4 Installing the Differential

1. Carefully thread the differential into the middle belt.
2. Make sure that the differential is not wedged into the frame and that the centre belt runs parallel to the frame.

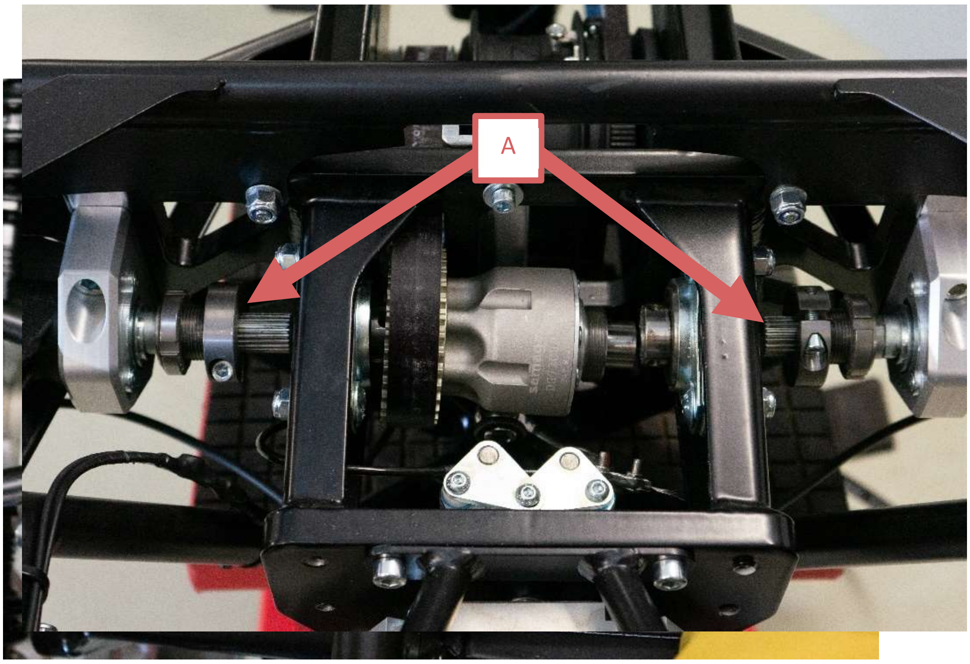
If the differential is difficult to thread into the middle belt, make sure the center belt tensioner is fully loosened.





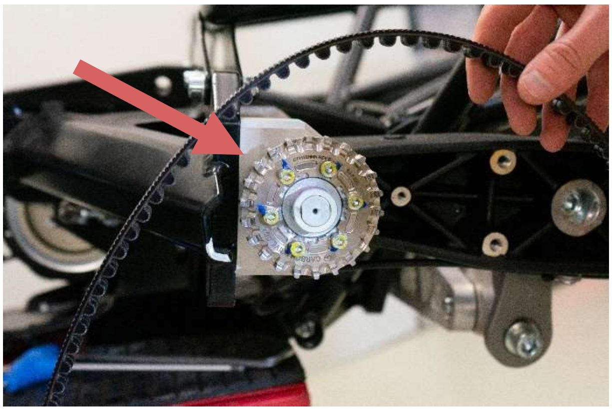
OPTIONAL: If you detached the left gear sprocket from the gear hub in the previous step 3.3, do not reattach it to the gear hub until the center belt is on the differential and gear sprocket.

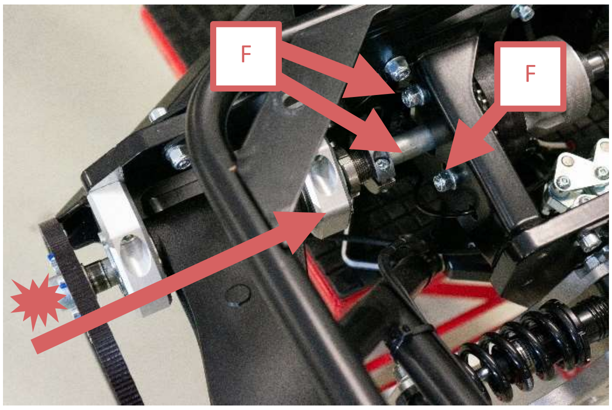
3. Clean and lubricate the splined interfaces [A] of the drive shaft and differential.



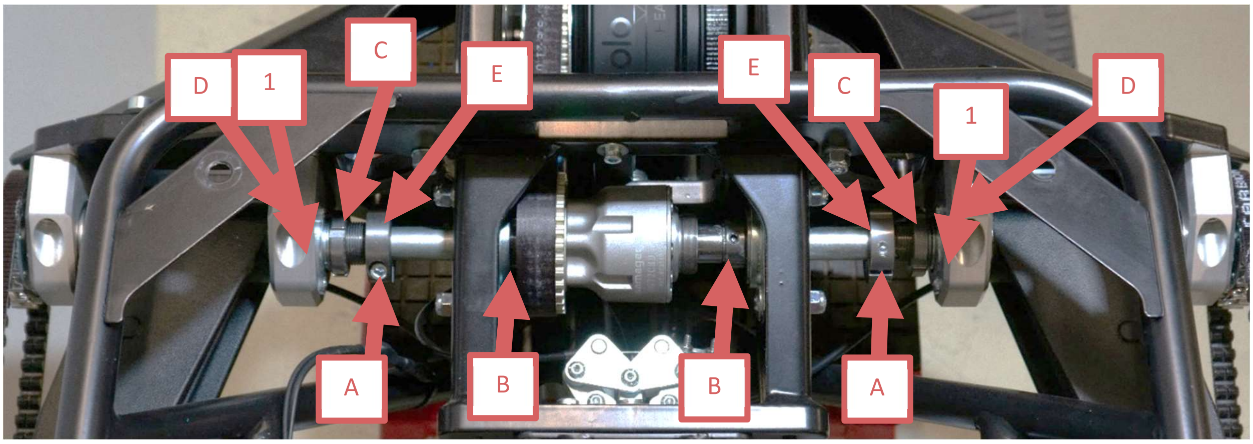
4. Thread both rear belts over the sprockets. While doing so, carefully (with a rubber mallet!) push/hammer both drive shafts into the differential. Be careful not to damage the belt. Make sure that the drive shafts are fully inserted.

5. After the shaft is fully engaged in the differential, tighten all nuts [F] that secure the ball bearing retainer to the frame.



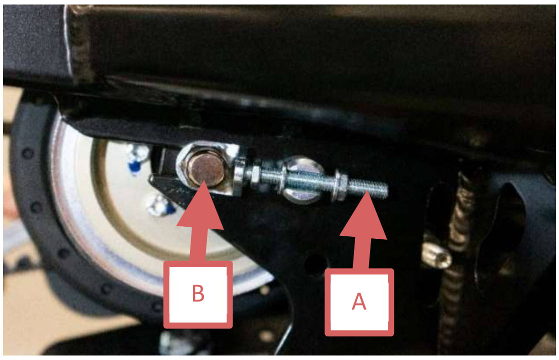


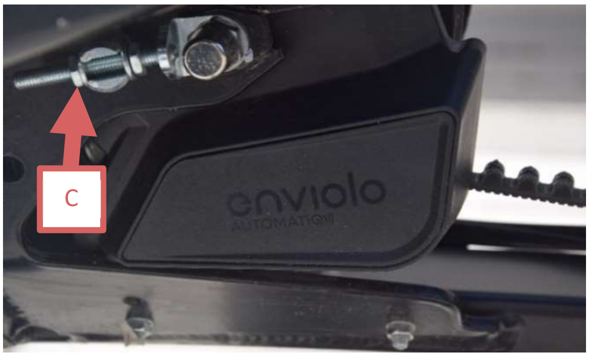
5.5 Fixing the Drive Shafts

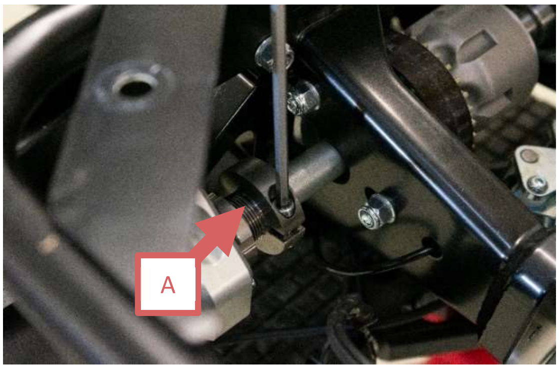


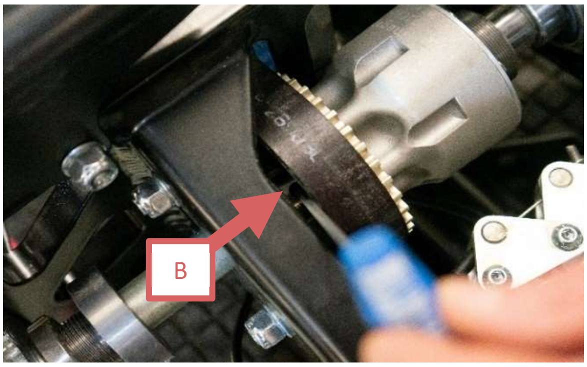
1. Make sure that the preload spacers [1] and preload nuts [C] are flush with the aluminium support [D] and tighten both M6 screws [A] in the clamps [E].

2. Tighten the 4 grub screws [B] to secure both shafts.







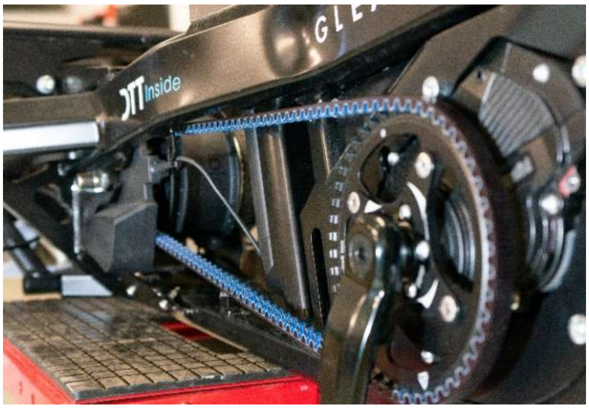


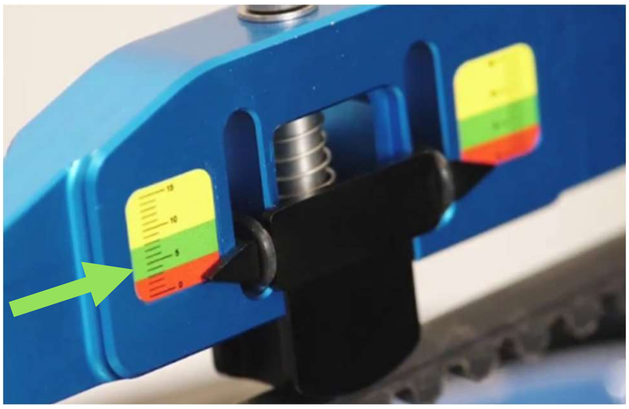
If both drive shafts are not fully pushed in, the offset of the rear belts may cause contact with the rear wheels. If the position of the differential remains free-floating when the drive shafts are fully pushed in, align it with the transmission to create as little offset of the center belt as possible!

5.6 Position the Gear Hub & Tensioning the Front Belt

1. Attach both belt tensioners [A] on each side. Make sure that the flatter tensioner is on the side of the interface!
2. Grease the thread of the gear axle nuts [B] and tighten them slightly so that the gear axle can still move.
3. Note the arrangement of the nuts and spacers at this point [See 5.0].
4. Tension the front belt first by turning the 10 mm nuts [C] clockwise until the tension is about 35 Hz [+/- 5 Hz]. If you use the official Gates tool, the tension must be in the lower third (4-5) in the green range.
5. When the tension corresponds to the desired value, tighten both gearbox axle nuts [B] to 35Nm.

In addition to tools for measuring belt tension, Gates also offers the "Carbon Drive" app. You can download it via Google Play or Apple Store for Android and iOS.

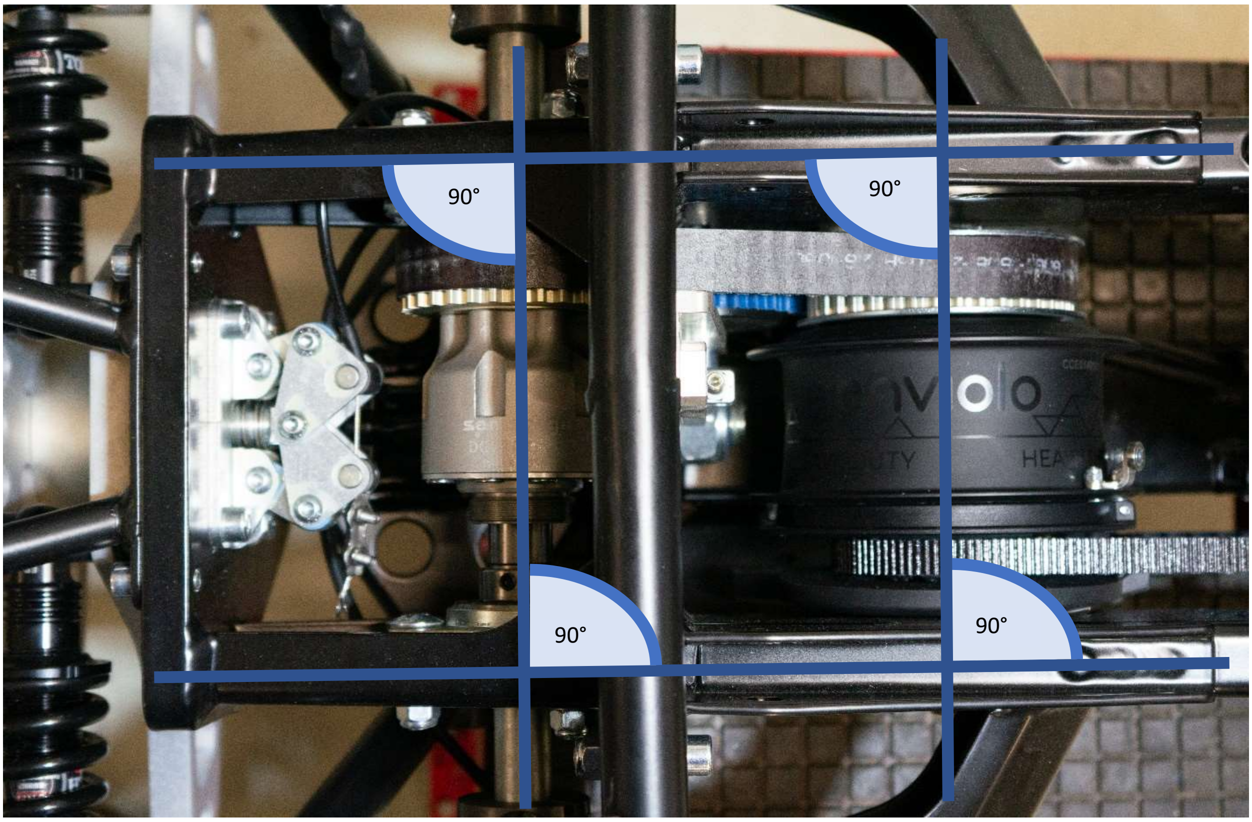




Tightening the front belt beyond the recommended tension may cause the gear hub alignment to shift during the first run and cause damage to the belt and gear hub!

5.7 Alignment of the Gear Hub

Apply the same method to the middle belt-side transmission axle tensioner. Adjust both tensioners so that the front belt tension is correct, and the alignment of the transmission is correct. When you are finished, tighten both main axle transmission nuts securely.



Please check the correct alignment of the gear hub. The gearbox axle must be aligned exactly parallel to the differential, otherwise uneven forces can occur on the center belt!

Incorrect adjustments can cause damage to the gear hub or the belt system!

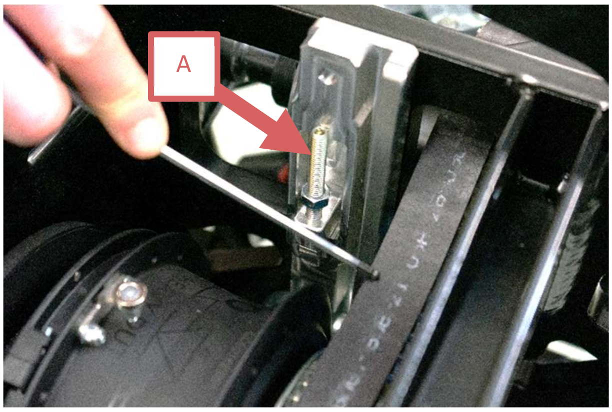
If the tension is correct, tighten the nuts of the gearbox axle, check if all nuts of the tensioner are correct and check again the tension of the front belt and the alignment of the gearbox.

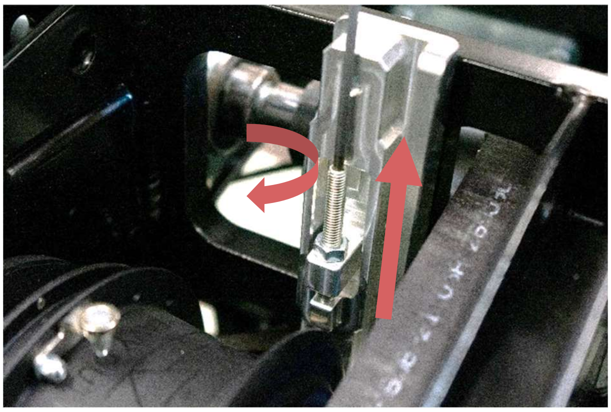
5.8 Tensioning the Middle Belt

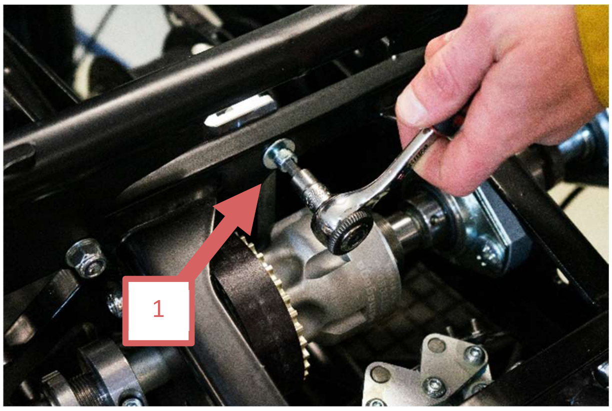
1. Tension the mid belt by turning the threaded rod [A] on the mid belt tensioner clockwise with an Allen key.
2. When the mid belt deflects 2.5mm at 57-61Nm force, the tension is optimal.

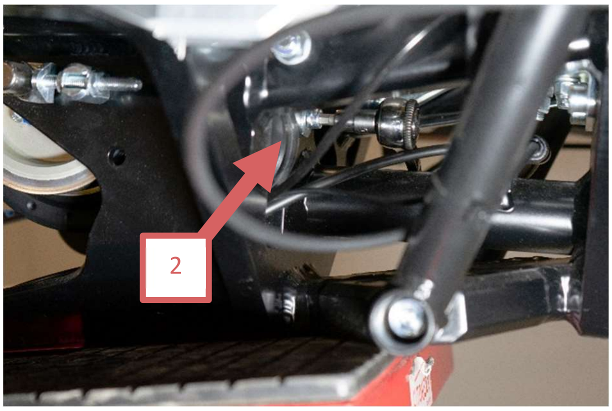
Use the Gates App and set the mode to "Motorcycle". The optimal tension of the center belt is 270Hz [+/- 10Hz] harmonic frequency.

3. 3. Tighten both fastening screws [1] and [2] of the middle belt tensioner.





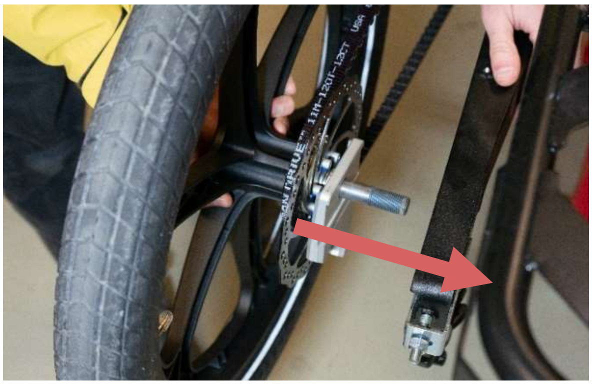
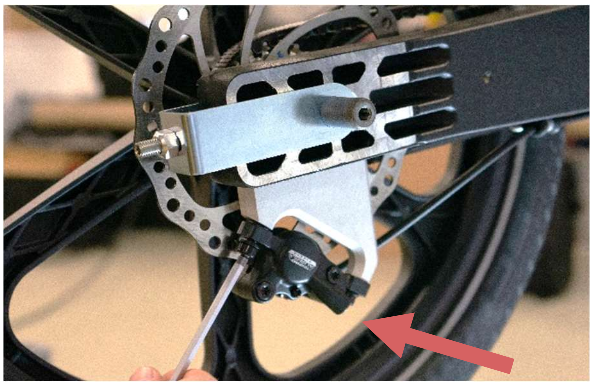
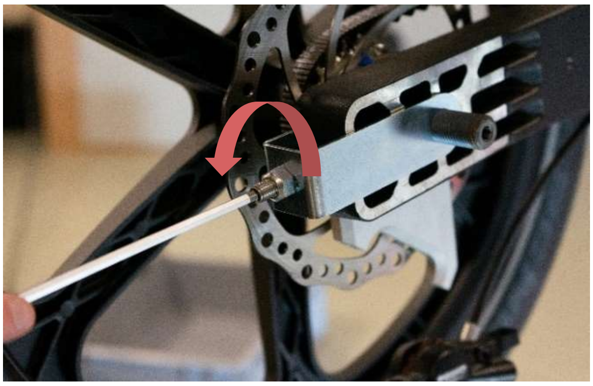
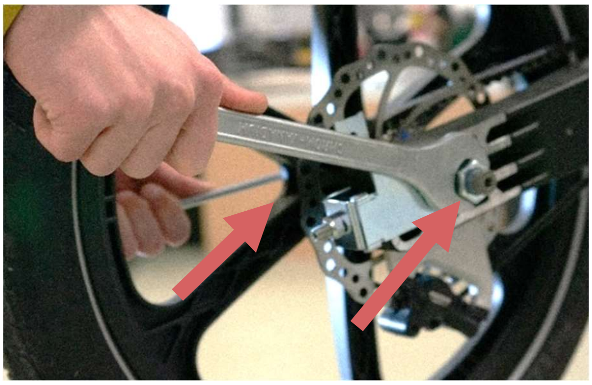




Tightening the middle belt beyond the recommended tension can cause the gear hub alignment to shift while driving and cause damage to the belt and gear hub!

5.9 Mounting the Rear Wheels & Rear Belts

1. Carefully thread the two rear belts onto the sprockets and slide the two rear wheel axles into the swingarms. Note the arrangement of the components [wheel incl. brake disc | OPTIONAL 2x spacer | brake calliper]
2. Tighten the tension of the rear belts with a 4 mm Allen key by turning the thread counter clockwise.
3. Both belts should be tensioned to 40Hz [+/- 5Hz] or to the upper third (6-8) of the green point using the official Gates tool.
4. Clean and grease the threads if necessary. Replace both rear wheel nuts and tighten them to 12Nm with a 24mm wrench.

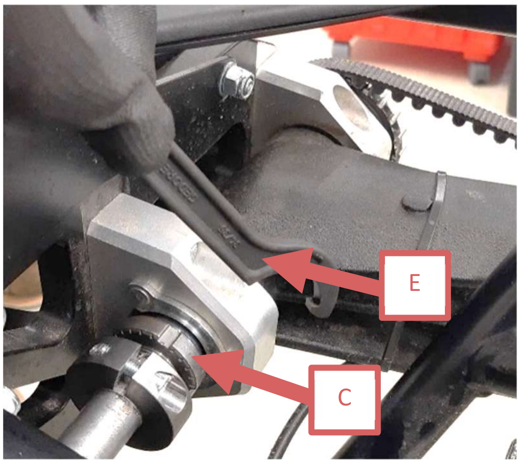





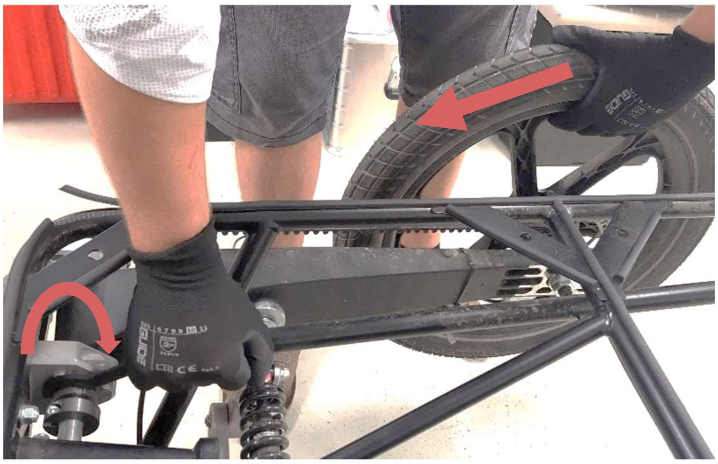
If the tension of the rear belts is too low, this can lead to loud noises when driving and cause damage to the belts and tires. Therefore, always observe the correct tension and also check both belts after the first test drive.

5.10 Setting the Drive Shaft Preload

Make sure that all 4 grub screws and both bolts on the clamps on both drive shafts are tightened!

1. Use a hook wrench [E] or pipe wrench to hold the outer ring of the preload clamp [B].
2. For Right side [in driving direction]: Hold the tire casing with one hand and fix the ring with the hook wrench. Rotate the tire in the direction of travel and the ring in the opposite direction. If the tightening resistance exceeds the hand force, the preload is set correctly.
3. For Left side [in the direction of travel]: Repeat the right-side procedure in the opposite direction and test the preload by pedalling on the mounting stand. There should be no clacking sounds. If there is, increase the preload again.





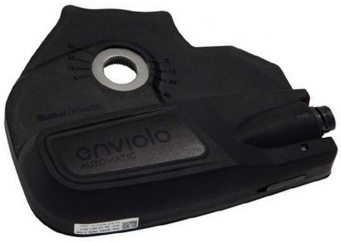
Make sure that the all screws fixing the drive shafts are tight, otherwise they may slip when increasing the preload! If the preload of the shaft is too low, clacking noises may occur. If you notice such noises when pedaling, check the preload again and adjust it if necessary.

6.0

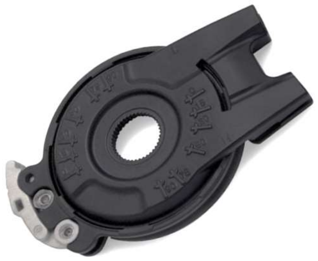
Calibration of the Gear Hub

6.1 Identify your Interface Hub

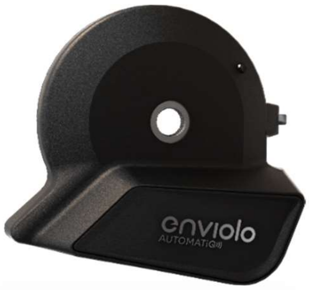
After installing the new gear hub into the frame, the gear hub and the Automatic+/AutomatiQ interface hub must be calibrated to shift correctly. Depending on which configuration of drive unit and interface hub you have, the calibration process varies.



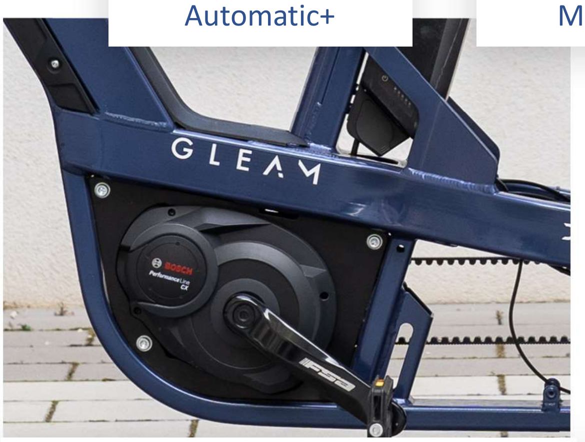
enviolo Automatic+



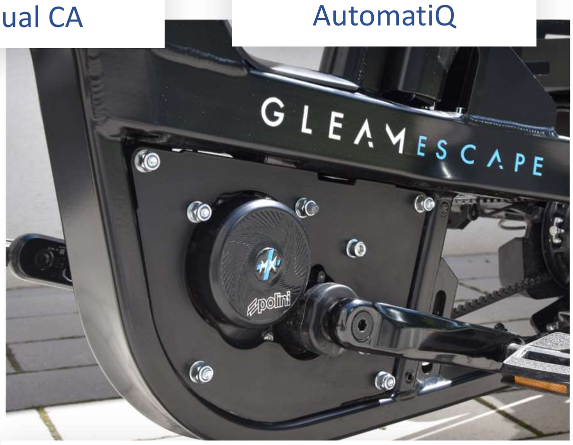
enviolo Manual CA



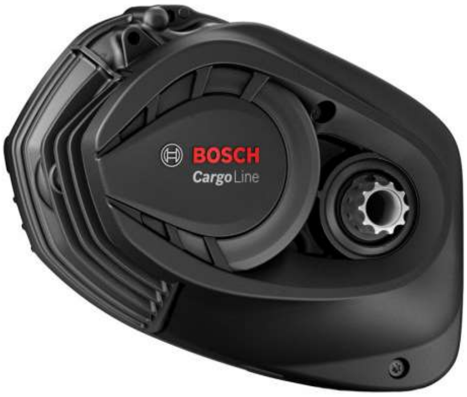
enviolo AutomatiQ



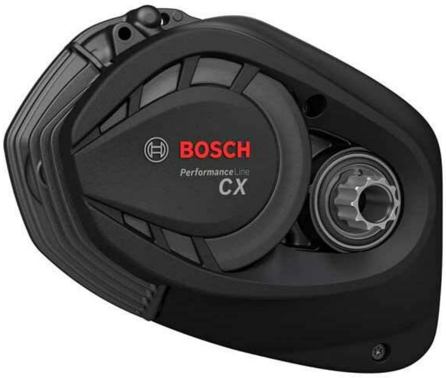
Bosch Performance Line CX [Gen2]



Polini E-P3+ MX



Bosch Cargo Line (Gen4)

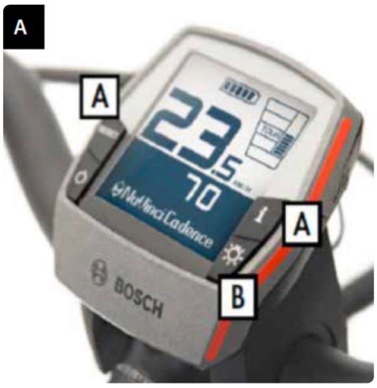


Bosch Performance Line CX (Gen4)

ⓘ If you have a manual shifting system as an enviolo, you can skip this entire step!

6.2 Bosch Intuvia & enviolo AutomatiQ– eShift Calibration

If you own a vehicle with the configuration BOSCH engine with Intuvia display (Performance Line CX - Gen2) in combination with an enviolo AutomatiQ shift unit, please proceed with the following process.



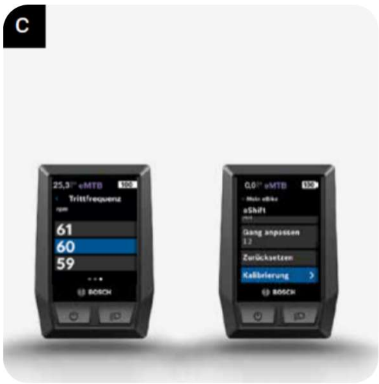
1. Drive onto a flat road and activate the parking brake and the tilt lock of your GLEAM bike.
2. Turn on the Bosch Intuvia system. Do not select motor assist.
3. Activate "Configuration Mode" by pressing and holding the "RESET" and "i" [A] buttons simultaneously.
4. Press the [i] button until the screen shows "gear calibration".
5. Press the "Light" button [B] to start the calibration.
6. Release the parking brake and tilt lock.
7. Pedal at more than 5 km/h on the dyno or on the road while the system shifts from full overdrive to full underdrive several times to complete the calibration process.

You should be able to clearly hear the shifting noises from the hub. If you do not hear any shfiting noises and the calibration subsequently fails, note the error code and refer to the "9.0 Error messages" section.

8. 8. After completion of the calibration process, the system automatically returns to the driving mode.

6.3 Bosch Kiox & enviolo AutomatiQ– eShift Calibration

If you own a vehicle with the configuration BOSCH engine with Kiox display (Cargo Line/Performance Line CX - Gen4) in combination with an enviolo AutomatiQ shift unit, please proceed with the following process.



Switch on the Bosch Kiox system. Do not select motor assistance.

1. Select "Settings" in the menu by pressing the [>] and [<] keys and confirm your selection with the pound key [<>].
2. Select the menu item "My eBike" with [+] and [-] and confirm your selection with [<>] or [>].
3. Select the "eShift" menu item and confirm your selection.
4. Select the "Calibration" menu item and confirm your selection.
5. Continue to pedal while the system switches from full overdrive to full underdrive several times to complete the calibration process and the screen displays "Calibration successful".

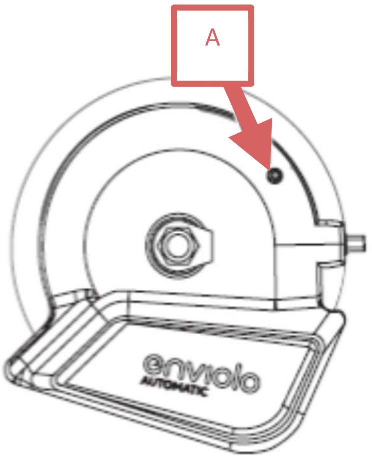
You should be able to clearly hear the shifting noises from the hub. If you do not hear any shifting noises and the calibration subsequently fails, note the error code and refer to the "9.0 Error messages" section.

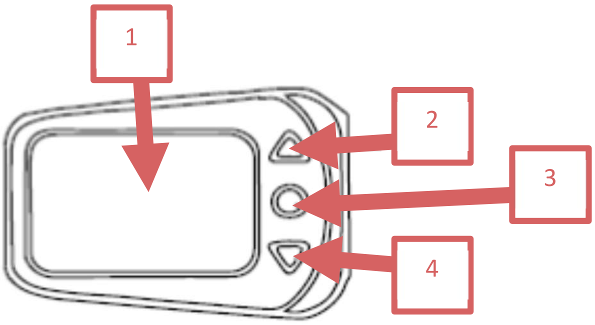
6. After completion of the calibration process, the system automatically returns to the driving mode.

6.4 Polini & enviolo AutomatiQ – enviolo App Calibration

If you have a vehicle with the Polini engine configuration (E-P3+ MX) in combination with an enviolo AutomatiQ shifting unit, please proceed with the following process.

1. Download the enviolo AutomatiQ app from the App Store (Apple) or Google Play (Android) and install the app.





2. Launch the enviolo app
3. After the welcome screen of the app disappears, you will see a connection request.
4. Turn on your Polini engine system.
5. Press and hold the button on the front of the hub interface [B] for 5 seconds. The button will start flashing blue. If you have difficulty reaching the button, use a pen or key to do so.
6. The device should now appear on your screen.
7. Click on your preferred device to start the pairing process.
8. After the pairing is complete, you will see the menu screen.
9. Close the enviolo app.
10. Initiate the pairing mode on the hub interface again.
11. Press and hold the centre button [3] seconds until the LED starts flashing green and red. As soon as the LED only flashes green, the device is paired.

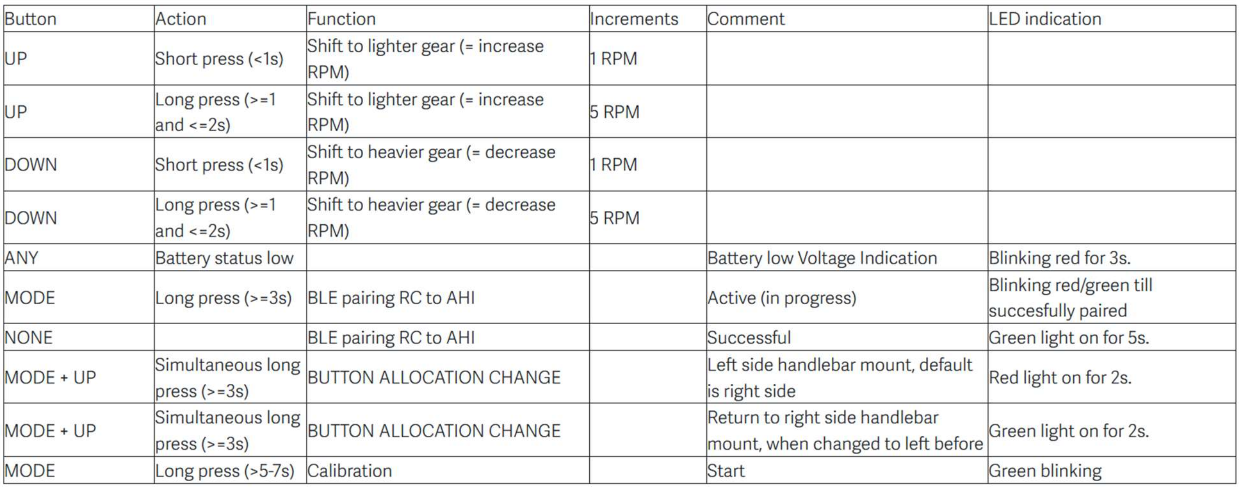
The system must be calibrated during initial commissioning or after system maintenance or faulty functionality.

12. Switch off the motor support on your Polini system.

13. Now start pedalling. Pedal lightly throughout the calibration process (preferably on a stand with the rear wheel off the ground).
14. On the controller, press and hold the centre button [3] for 3 seconds until the rear hub begins to shift (5-7 seconds), then release the button.
15. Continue to pedal lightly throughout the calibration process while the system switches from "low" to "high" ratio several times and completes the calibration.
16. The calibration must not take longer than 12 seconds.

You should be able to clearly hear the shifting noises from the hub. If you do not hear any shifting noises and the calibration subsequently fails, note the error code and refer to the "9.0 Error messages" section.

6.4.1 Polini Buttons- and LED-Indications & AutomatiQ - CO / CLiQ Pure Controller



Button	Action	Function	Increments	Comment	LED indication
UP	Short press (<1s)	Shift to lighter gear (= increase RPM)	1 RPM		
UP	Long press (>=1 and <=2s)	Shift to lighter gear (= increase RPM)	5 RPM		
DOWN	Short press (<1s)	Shift to heavier gear (= decrease RPM)	1 RPM		
DOWN	Long press (>=1 and <=2s)	Shift to heavier gear (= decrease RPM)	5 RPM		
ANY	Battery status low			Battery low Voltage Indication	Blinking red for 3s.
MODE	Long press (>=3s)	BLE pairing RC to AHI		Active (in progress)	Blinking red/green till succesfully paired
NONE		BLE pairing RC to AHI		Successful	Green light on for 5s.
MODE + UP	Simultaneous long press (>=3s)	BUTTON ALLOCATION CHANGE		Left side handlebar mount, default is right side	Red light on for 2s.
MODE + UP	Simultaneous long press (>=3s)	BUTTON ALLOCATION CHANGE		Return to right side handlebar mount, when changed to left before	Green light on for 2s.
MODE	Long press (>5-7s)	Calibration		Start	Green blinking

7.0

Firmware- & Software Updates

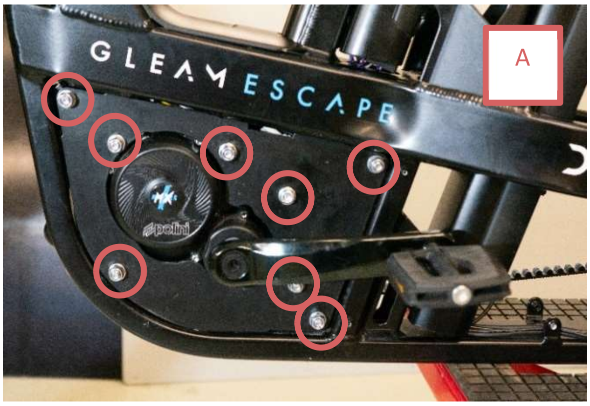
7.1 Polini Motor System – Firmware Update

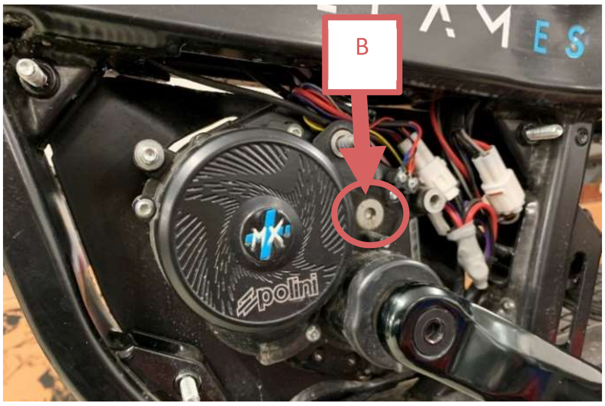
If you own a vehicle with a production date from February 2022, you can access the USB interface without removing the engine mounting plates. If you own a model that was produced earlier, please follow the instructions below.

7.1.1 Polini Motor System – Preparation

If you own a model from February 2022, you have direct access to the protection screw [B]. In this case, skip this part of the instructions.

1. Switch off the engine system.
2. Remove all 8 screws [A] from the Polini motor plate.
3. Remove the motor plate.
4. Remove the protection screw with an Allen key CH6 to access the mini-USB port.
5. Switch on the engine system.
6. Connect the micro-USB cable and connect it to your computer.
7. Remove the protective screw [B] with a 6mm Allen wrench to gain access to the mini-USB port.





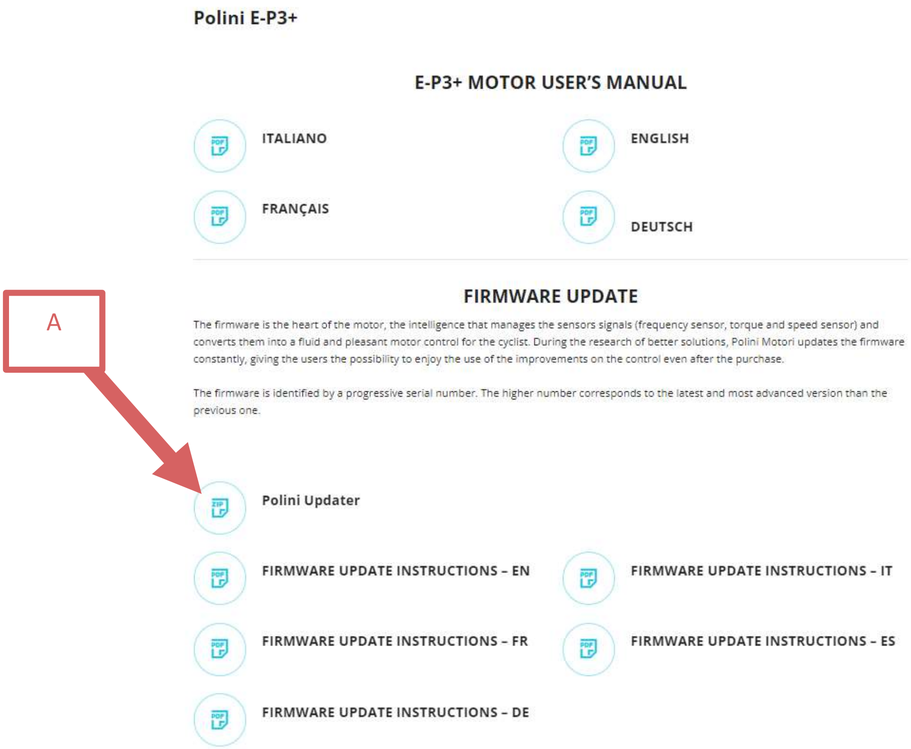
7.1.2 Polini Updater

1. Download the latest version of the firmware from the Polini website.

    a. To do this, visit the Polini page at:

    www.poliniebike.com/en/polini-e-p3-8/

    b. Click on “Polini Updater“ [A]



Polini E-P3+

E-P3+ MOTOR USER’S MANUAL

ITALIANO
ENGLISH
FRANÇAIS
DEUTSCH

FIRMWARE UPDATE

The firmware is the heart of the motor, the intelligence that manages the sensors signals (frequency sensor, torque and speed sensor) and converts them into a fluid and pleasant motor control for the cyclist. During the research of better solutions, Polini Motori updates the firmware constantly, giving the users the possibility to enjoy the use of the improvements on the control even after the purchase.

The firmware is identified by a progressive serial number. The higher number corresponds to the latest and most advanced version than the previous one.

Polini Updater
FIRMWARE UPDATE INSTRUCTIONS – EN
FIRMWARE UPDATE INSTRUCTIONS – IT
FIRMWARE UPDATE INSTRUCTIONS – FR
FIRMWARE UPDATE INSTRUCTIONS – ES
FIRMWARE UPDATE INSTRUCTIONS – DE

    c. Open the downloaded file "PoliniUpdate.jar“.

2. For all operating systems, check that Java 1.7 or the latest version is installed.
3. If this is not installed, download Java from www.java.com and install it.
4. If Windows 8 or Windows 10 is used, the motor will be automatically detected when the USB cable is connected to the PC.

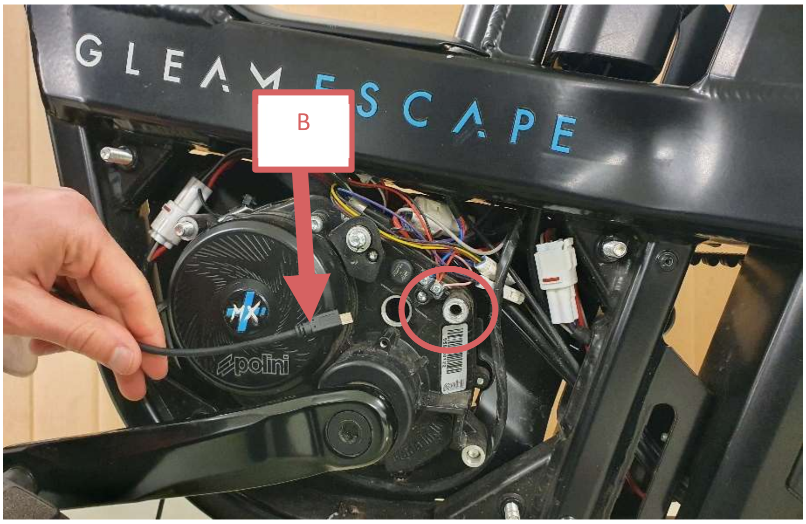
⚠ If Java is not installed on the computer, the file may be incorrectly automatically opened, for example, with Winzip or Winrar. Make sure that Java is installed correctly and that the file was opened with Java. If necessary, open the file by right-clicking and selecting Open With and Java.

The PC must be connected to the Internet to run the updates.

To avoid a sudden shutdown while updating the firmware, make sure the battery is sufficiently charged or connect the laptop to the charger.

Do not disconnect the USB cable while the firmware is being uploaded.

7.2 Polini Firmware Update



1. Turn on the motor system.
2. Connect the micro-USB cable [B] to the USB port and connect it to your computer.
3. Launch the "Polini Updater" with Java.
4. If the PC is connected to other USB devices, select the correct COM [1] for the engine.

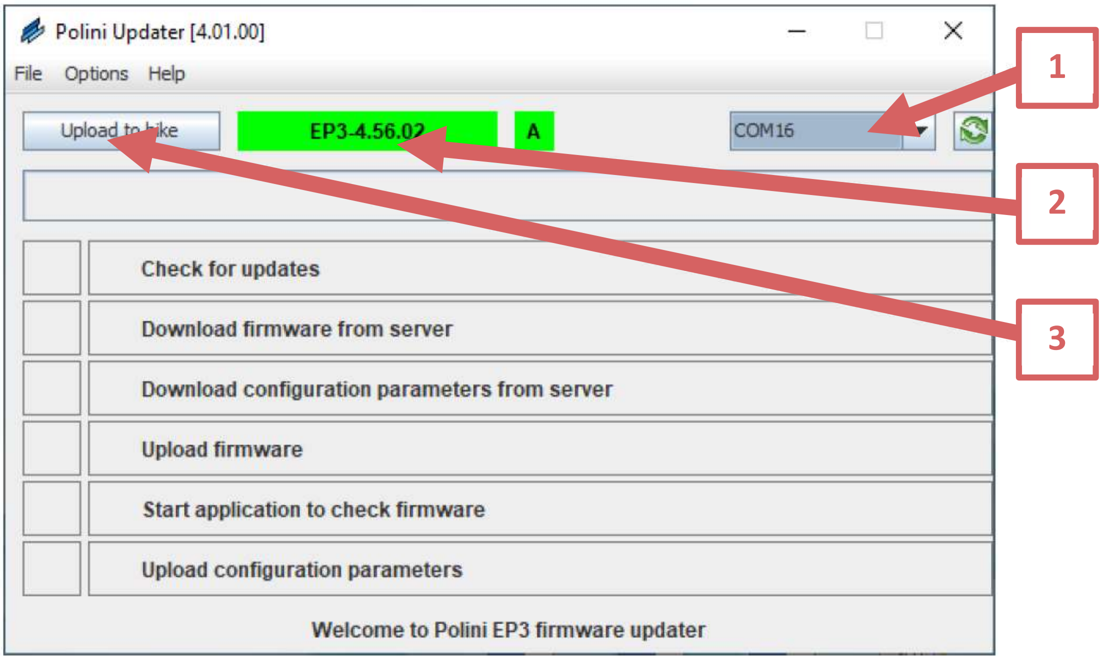
Again, make sure that you are connected to the Internet.

5. The program displays the version of the firmware already installed on the motor [2].
6. Press the "Upload to bike" button [3] in the upper left corner.

If a new version of the firmware is available online, it will be updated automatically; otherwise, it will confirm that the engine already has the latest available version installed.

7. Once the update is complete, disconnect the USB cable, turn off the bike, and then turn it back on.

8. Screw the protective screw back in with a 6mm Allen wrench to finsh the process.


Polini Updater [4.01.00]
File
Options
Help
Upload to bike
EP3-4.56.02
A
COM16
Check for updates
Download firmware from server
Download configuration parameters from server
Upload firmware
Start application to check firmware
Upload configuration parameters
Welcome to Polini EP3 firmware updater
1
2
3

7.3 Polini Firmware Recovery

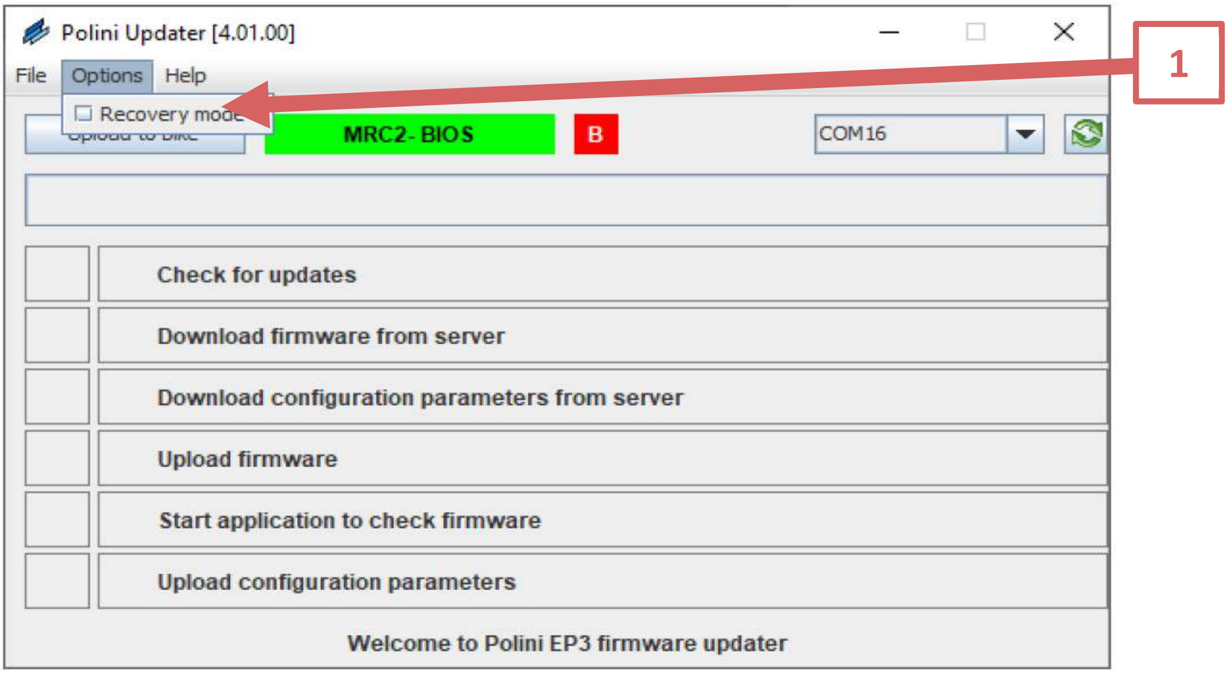
A restore should only be performed if the firmware update was interrupted before it was completed, thereby disabling the powering on of the bike. This should be avoided if at all possible!

The PC must be connected to the Internet to perform the updates.

To avoid sudden shutdown during the firmware update, make sure the battery is sufficiently charged or connect the laptop to the charger.

Do not disconnect the USB cable while the firmware is being uploaded.

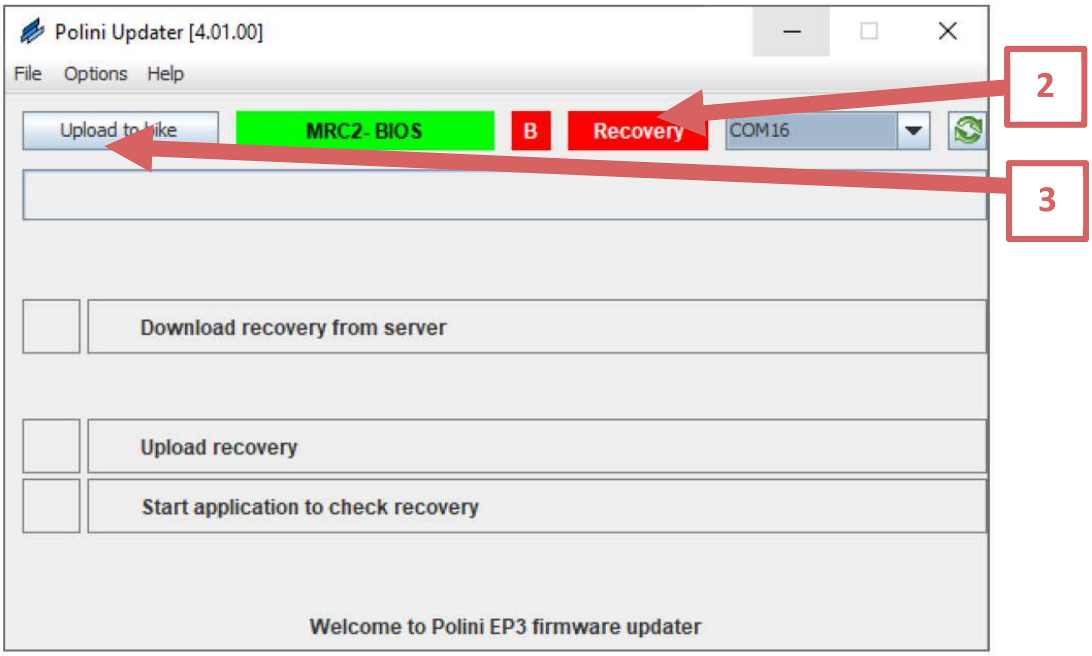
1. Connect the USB cable to the motor and to the PC. Check that the battery is switched off.
2. Open the "Polini updater" program.
3. If the PC is connected to other USB devices, select the COM port of the motor.
4. Select RECOVERY [1] at the top left of the "Options" menu.


Polini Updater [4.01.00]
File
Options
Help
☐ Recovery mode
MRC2- BIOS
B
COM16
Check for updates
Download firmware from server
Download configuration parameters from server
Upload firmware
Start application to check firmware
Upload configuration parameters
Welcome to Polini EP3 firmware updater
1

5. The main screen will display "RECOVERY" mode activated in red [2].

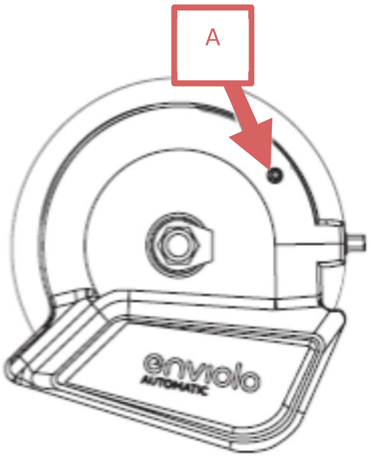
6. Press the upper left button "Upload to bike" [3] to start the update. When the process is complete, the firmware update is complete.

7. When the process is complete, disconnect the USB cable and restart the bike.

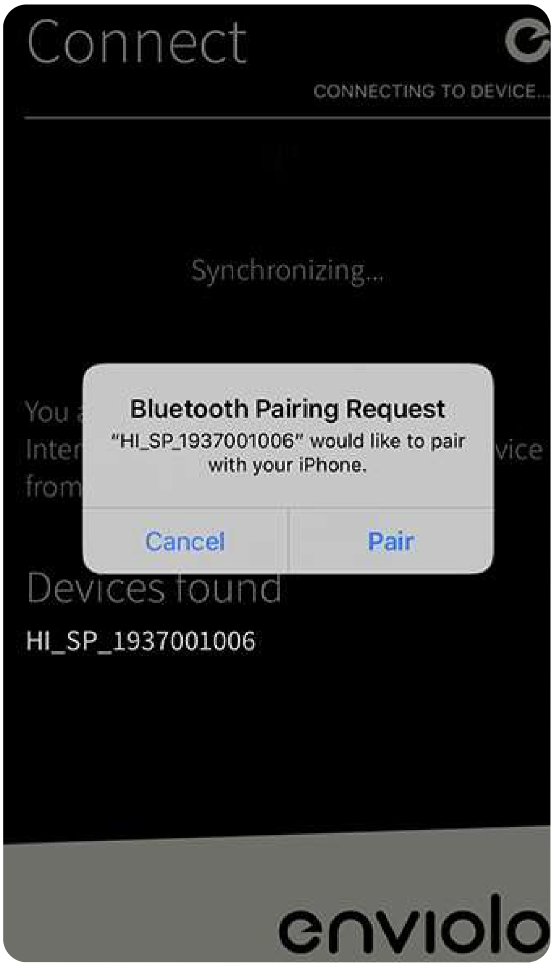

Polini Updater [4.01.00]
File
Options
Help
Upload to bike
MRC2- BIOS
B
Recovery
COM16
Download recovery from server
Upload recovery
Start application to check recovery
Welcome to Polini EP3 firmware updater
2
3

7.4 Enviolo AutomatiQ System – Firmware Update

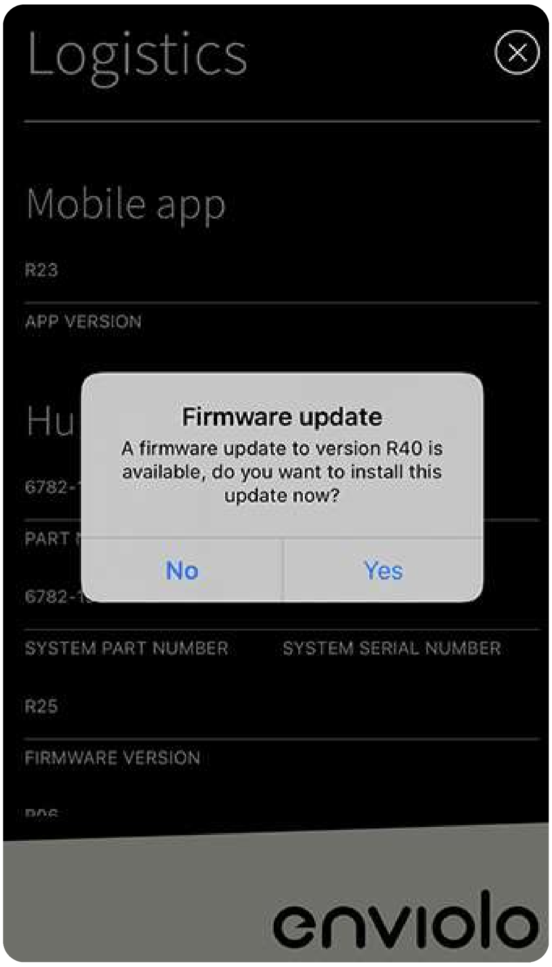
You can update the firmware in a few minutes with your smartphone. Make sure that you stay about 2 m away from your GLEAM bike during the whole process!



1. Download and install the enviolo AutomatiQ app from the App Store (Apple) or Google Play (Android).
2. Make sure that the Bluetooth setting of your phone is turned on.
3. Turn on your engine system.
4. Open the Enviolo AutomatiQ app.
5. Press and hold the button on the front of the hub interface [B] for 5 seconds. The button starts flashing blue. If you have trouble reaching the button, use a pen or key to do so.
6. The device should now appear on your screen.
7. Click on your preferred device to start the pairing process.
8. A dialog box with a Bluetooth pairing request will appear on your screen. Press "Pair".
9. If your firmware has not yet been updated to the latest version, a firmware update notification dialog box will appear on your screen. Press "Yes."
10. The app downloads the firmware update and transfers it to your hub interface. The process takes a few minutes. When the update is complete, a dialog box appears on your screen.



Bluetooth Pairing Request
"HI_SP_1937001006" would like to pair with your iPhone.



Firmware update
A firmware update to version R40 is available, do you want to install this update now?

ⓘ For more information about updating the firmware and its versions, please visit www.enviolo.com/en/support/

7.5 Polini E-Bike App

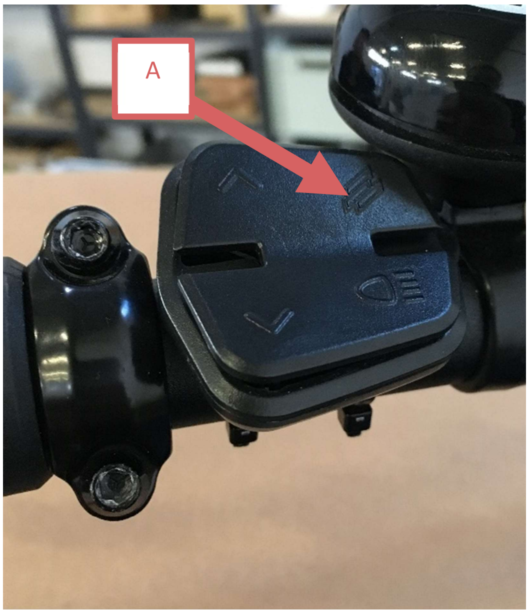
This app allows Polini users to manage in detail the controls, settings, diagnostics and adjustments of the engine cards.

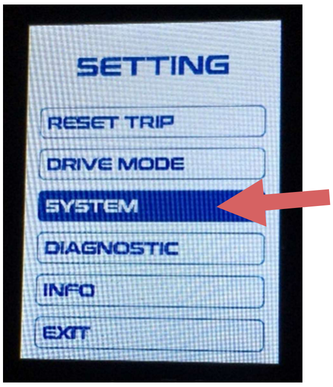
7.5.1 Setting the Motor Parameters

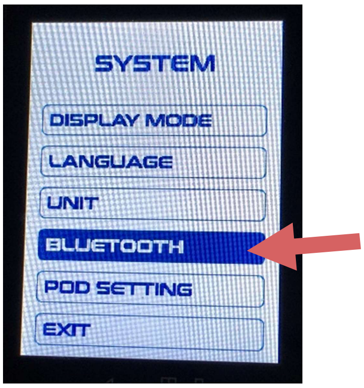
1. Download the Polini E-Bike application on your smartphone.
2. Turn on the motor system with the button on the Polini battery.
3. Turn on Bluetooth on your GLEAM bike and your smartphone.

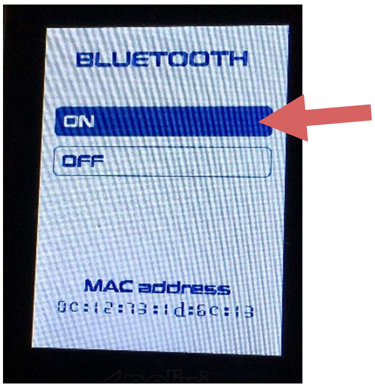
To use the Bluetooth functionality on your bike, the firmware of the Polini EP3+ motor must be updated!

4. Press button [A] for about 2 seconds on your Polini controller to access the settings. Navigate to SYSTEM and confirm with Head [A]. Now navigate to BLUETOOTH, confirm with [A] and confirm with [A] in the ON field to switch on Bluetooth. Confirm in the EXIT field to exit the menu.

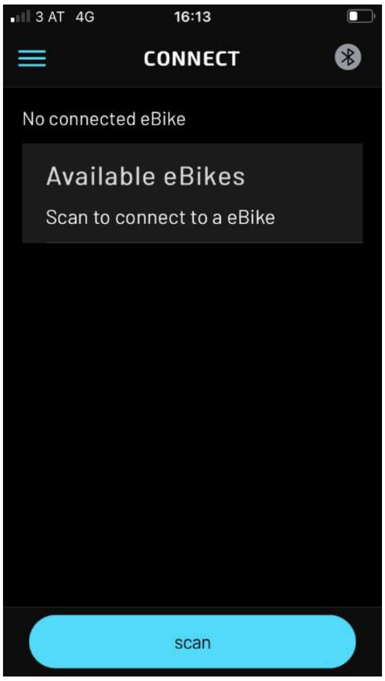








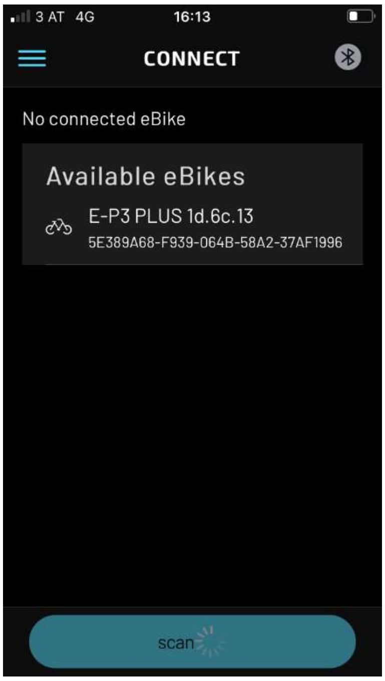
5. Open the downloaded Polini E-Bike App on your smartphone.
6. Press the blue scan button. After a short time, the identification number of your motor should appear on your screen.
7. Click on the ID of your bike. Now you can see the display of your bike on the screen of your smartphone.



No connected eBike

Available eBikes

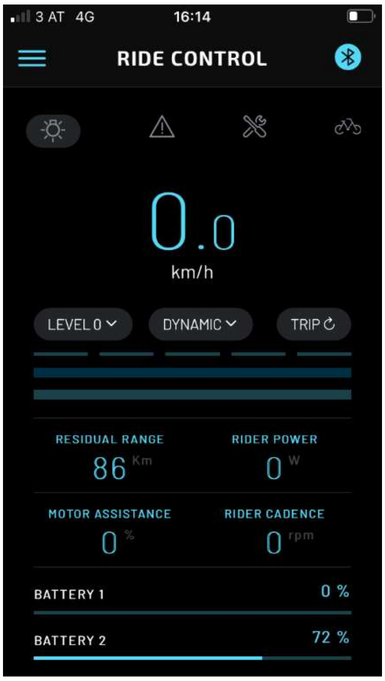
Scan to connect to a eBike



No connected eBike

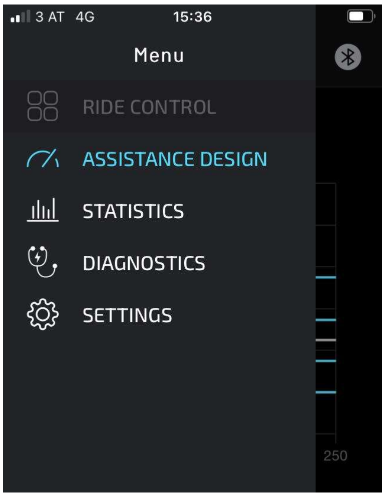
Available eBikes

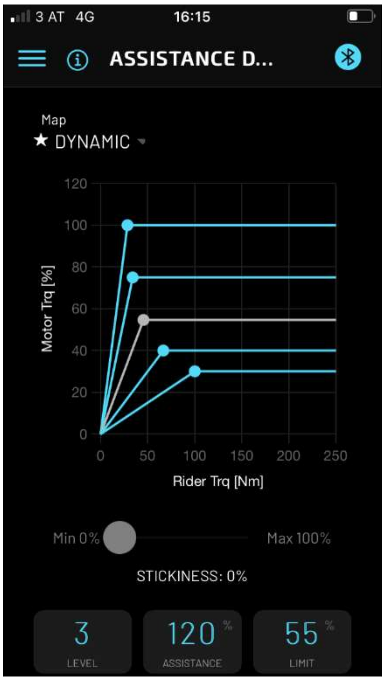
E-P3 PLUS 1d.6c.13
5E389A68-F939-064B-58A2-37AF1996



7.5.2 Maps Setup

In the assist design menu, you can choose from 5 presets [maps] that you can customize to your liking. You can also set the assistance levels and their torque and limit.

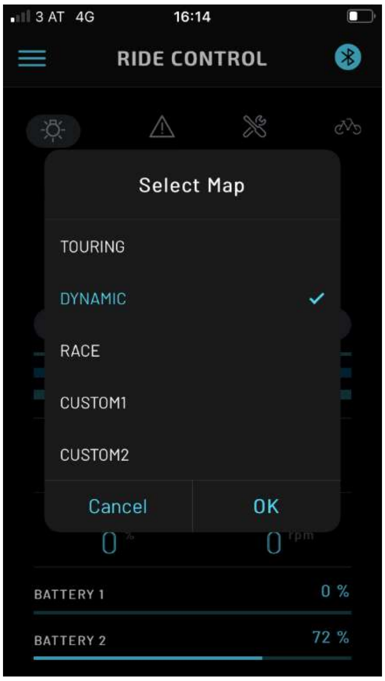




Map
★ DYNAMIC

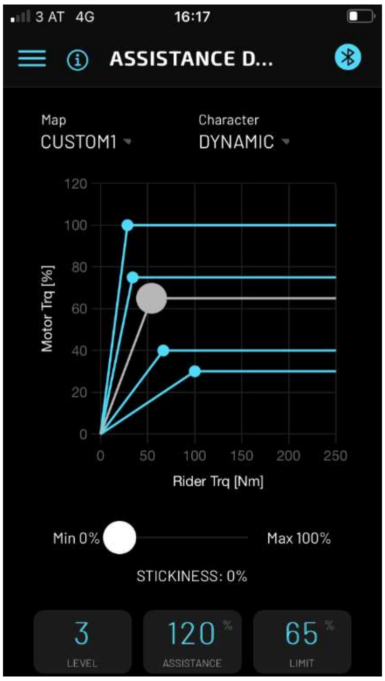
STICKINESS: 0%

3 LEVEL | 120 % ASSISTANCE | 55 % LIMIT



BATTERY 1 0 %

BATTERY 2 72 %



Map
CUSTOM1

Character
DYNAMIC

STICKINESS: 0%

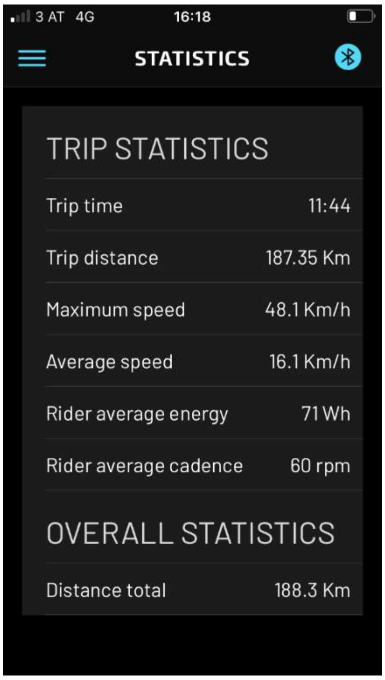
3 LEVEL | 120 % ASSISTANCE | 65 % LIMIT

7.5.3 Statistics & Diagnostics

In this section all information and statistics about your rides are collected.

Here you can also analyze your performance and the details of your trips.

The application's built-in diagnostic system can also provide you with data about the condition of your engine and battery system. If you have service or warranty claims on your Polini system, record this information for the Polini Service Team.

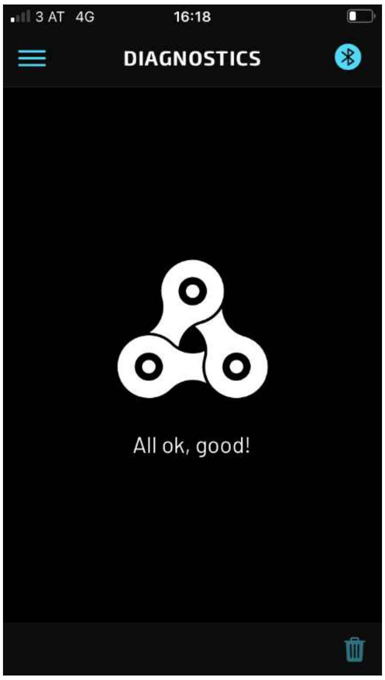


TRIP STATISTICS

Trip time	11:44
Trip distance	187.35 Km
Maximum speed	48.1 Km/h
Average speed	16.1 Km/h
Rider average energy	71 Wh
Rider average cadence	60 rpm

OVERALL STATISTICS

Distance total	188.3 Km



All ok, good!

8.0

Maintenance, Service & Warranty

8.0 Maintenance, Service & Warranty

8.1 Maintenance Plan

To maintain full warranty coverage and to ensure that your GLEAM bike is always safe to ride, we recommend that you service your bike regularly. The following maintenance schedules apply to commercial and private use.

For commercial customers:

Service plan	Within KM or time (whichever comes first)	
Maintenance 1	**300 km**	**3 Months**
Maintenance 2	**1.500 km**	**6 Months**
Maintenance 3	**3.000 km**	**12 Months**
Maintenance 4	**4.500 km**	**18 Months**
Maintenance 5	**6.000 km**	**24 Months**
Maintenance 6	**7.500 km**	**30 Months**
Maintenance 7	**9.500 km**	**36 months**

For private customers:

Service Plan	Within KM or time (whichever comes first)
Maintenance 1	6 Months
Maintenance 2	18 Months
Maintenance 3	30 Months
Maintenance 4	42 Months
Maintenance 5	54 Months
Maintenance 6	66 Months

When should the bike be serviced? In addition to the total distance covered by your GLEAM Multi Use Bike (as indicated by the odometer on your display), a certified GLEAM Service Partner can help you determine when your next service is due. You can find a list of our dealers and service partners on our homepage at www.gleam-bikes.com/en/gleam-partner.

How to activate the odometer can be found in the user manual of the on-board computer at www.gleam-bikes.com/service.

Do not ride the bike if you notice any malfunctions or if any of the components are damaged or not working, otherwise there is a risk of injury! Have the Multi Use Bike serviced immediately by a GLEAM authorized dealer (see above).

Workshop Repair Form

(Revision 6)

READY TO RIDE

WORK REQUESTED

Work requested by: ______________________

Bike received by (Person & Date): ______________________

Bike Identification: ______________________

Bike required by (Date): ______________________

Work Required: ☐ General check/service

Areas requiring particular attention:

☐ Motor	☐ Belts	☐ Wheels/tyres	☐ Tilt-lock
☐ Electrical	☐ Driveshafts	☐ Controls	☐ Rework kit req.
☐ Gears	☐ Brakes	☐ Frame	☐ Other

.____.

.____.

.____.

.____.

WORK DONE

Work completed by: ______________

Service Date ______________

Vehicle mileage: ______________

Work Completed (Only for Customer Bikes)

	Start: **Finish:**	Warranty (Y | N):
	Start: **Finish:**	Warranty (Y | N):
	Start: **Finish:**	Warranty (Y | N):
	Start: **Finish:**	Warranty (Y | N):
TOTAL TIME FOR SERVICE & REPAIR		

Parts required for the service & notes during repair

.____.

.____.

.____.

	Service Checklist (Two GLEAM employees mandatory at check!)		
	Cockpit ergonomics OK [adjustable stem in mid position, handlebar rise vertical]		Parking brake function F&R
	Grips fully on handlebar and correctly fixed		Spring preload collar fully mounted on threads
	Gear shifter correctly fixed		Polini battery locking screw threads OK
	Display correctly fixed		Polini battery top cap correctly attached
	Motor control buttons (on handlebar) correctly fixed		Rear wheel axles tight on frame (hold axle, tighten nut)
	Brake levers correctly fixed		Rear wheels tight on axles (hold axle, tighten bolt)
	All other cockpit items tight (bell, light, etc)		Front axle tight and QR oriented parallel to fork leg
	Headset spacers correct, bearings smooth and free from play		All brake calipers tight [9Nm]
	Cockpit tight (stem, handlebar)		Tilt-Lock works correctly (lock/unlock), cable securely fixed
	All cable lengths and routing correct		Mid belt alignment correct
	Enviolo manual cables correctly clamped on interface		All other belts alignment correct
	Enviolo manual cable tension correct, barrel adjuster position correct		Mid belt tensioner moves freely
	Seat ergonomics [central, horizontal]		Belts not rubbing
	Seat correctly fixed		Middle belt tension
	Seat-tube free from burrs, seat post lubricated and slides smoothly		Front belt tension
	Seatpost clamp correctly assembled, sliding surfaces lubricated, correctly tightened		Rear belt tension L+R
	Crank arm torque correct [45Nm]		Rear belt tensioners adjusted and counter locked
	Check if pedals are tight		Front and rear lights work
	Pressure in all tyres [~3.5 Bar]		StVO Legal requirements present [1x front reflector, 2x rear reflectors, all wheels reflectors, bell function]
	Valve caps on all tyres and suspension		Good brake bleed (firm lever feel)
	Position of fork lockout: Open		Brakes aligned for minimal rub
	Keyset ist complete and in Batteries Keyholes		Batteries are fully charged
	Automatic shifting calibrated and shifting correctly		
	TEST RIDE		
	Stress test drivetrain (low gear, high support, uphill, with load, pedal hard (seated) from stop)		All belt tensions correct
	Front and rear brakes work		Gearbox position correct (not slipped in frame)
	Enviolo Automatic interface alignment is tight and doesn't turn		Motor support functions correctly (all levels)
	Shift through full gear range functions as intended		1-3km test ride performed

First Person Check: Name:______________________ Signature: ______________________

Second Person Check: Name:______________________ Signature: ______________________

☐ *Service Check finished and Ready to Ride!*

8.2 GLEAM Warranty

GLEAM warrants that all products are manufactured to the highest quality standards for this type of product and that these products are free from defects in workmanship and/or materials at the time of purchase. However, should a defect in workmanship and/or materials occur during the warranty period (under normal use as described in the manual), GLEAM must honour this warranty. All warranty conditions can be found in the general terms and conditions on our homepage at https://gleam-bikes.com/terms-and-conditions/.

8.3 Recommended Settings

Here you can find recommended settings for some of the GLEAM components. Please note that these are only recommendations and the manufacturer's recommendations may currently differ. Please contact the manufacturer of the components before changing the settings.

COMPONENT	TEST	OPTIMUM
Tire pressure - front	Measuring indicator on the bicycle pump	3.5 bar
Tire pressure - rear	Measuring indicator on bicycle pump	3.5 bar
Suspension fork	Measuring indicator on suspension fork pump	Maximum value according to manufacturer
Front belt	Gates app	35 Hz [+/- 5 Hz]
Middle belt	Gates app	270 Hz [+/- 10Hz]
Rear belt	Gates app	40 Hz [+/- 5 Hz]

9.0

Error Codes

9.0 Error Codes

Error codes can be shown on your display. Here you can find an overview of common error codes. If you have questions about these error messages, please consult the responsible manufacturer.

9.1 Polini Error codes

ERROR CODE	DESCRIPTION	SUGGESTED RESOLUTION
11	Temporary engine anomaly	Switch the bike off and on again, if the problem persists, contact Polini Support.
13	Overvoltage of the battery	Wait until the engine has cooled down, if the problem persists, contact Polini Customer Service.
14	Undervoltage of the battery	Switch the bike off and on again, if the problem persists, contact Polini Support.
16 / 25	Cyclist torque anomaly Detection	Switch the bike off and on again, if the problem persists, contact Polini Support.
18 / 22	Battery communication error	Check the connection between the battery and the engine.
19	Sensor anomaly on the wheel	Check the position of the magnet and the speed sensor on the gearbox/frame. It should be between 2-4mm. Check the electrical connections.
20 / 21 / 26	Communication error with the display	Check the connection cable between the display and engine.
23	Anomaly of the temperature of battery 1	Cool down the battery, reduce the engine support.
24	Anomaly of the temperature of battery 2	Cool down the battery, reduce the engine support.

9.2 BOSCH Error Codes

ERROR CODE	DESCRIPTION	SUGGESTED RESOLUTION
770 / 771	Gearbox error (enviolo CA - Automatic+/AutomatiQ)	Check the wiring of the automatic shifting unit. Check the completeness of all magnets and the position of the inner and outer magnetic ring on the gearbox. Check for damage/breakage to the shift unit. Check the version of the BOSCH magnetic sensor (1.0 - magnet pointing towards Automatic+ / AutomatiQ interface | 2.0 - magnet pointing 90° upwards) and change it if necessary. Observe the info in the operating instructions of the enviolo gear hub.
595 / 596	CAN bus communication error	Check the wiring to the automatic transmission shift unit and restart the system. If the problem persists, contact the Bosch eBike dealer.
503	Speed sensor error	Restart the entire system. Check the wiring and position of the speed sensor. If the problem cannot be solved, please consult your Bosch eBike dealer.

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